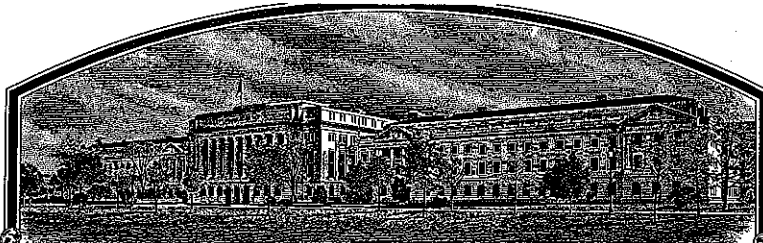


No.

200700120



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Luza Zaden Beheer B. V.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Capsule'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixteenth day of May, in the year two thousand and eight.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

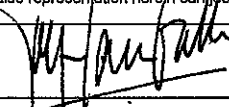
Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER ENZA ZADEN BEHEER B.V.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME E19.5761		3. VARIETY NAME CAPSULE	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) P.O. Box 7, 1600 AA ENKHUIZEN HALING 1E, 1602 DB ENKHUIZEN THE NETHERLANDS		5. TELEPHONE (Include area code) +31.228.315.844		FOR OFFICIAL USE ONLY PVPO NUMBER #200700120 FILING DATE February 8, 2007	
		6. FAX (Include area code) +31.228.315.854			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) CORPORATION		8. IF INCORPORATED, GIVE STATE OF INCORPORATION NORR-D-HOLLAND		9. DATE OF INCORPORATION 1938	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) ENZA ZADEN RESEARCH USA, INC ATTN: AERNOUDT AARDSE, MONIA SKASYNIAK P.O. Box 866 SAN JUAN BAUTISTA, CA 95045				FILING AND EXAMINATION FEES: \$ 4382 DATE 2/8/2007 CERTIFICATION FEE: \$ 768 DATE 2/20/2008	
11. TELEPHONE (Include area code) 831-623-4644		12. FAX (Include area code) 831-623-1746		13. E-MAIL a.aardse@coastalseeds.com	
14. CROP KIND (Common Name) LETTUCE		16. FAMILY NAME (Botanical) COMPOSITAE		18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP LACTUCA SATIVA L.		17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit g. <input checked="" type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) h. <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)				20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input checked="" type="checkbox"/> NO (If "no", go to item 23) 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED 22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)				24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation hereon can jeopardize protection and result in penalties.

SIGNATURE OF OWNER 		SIGNATURE OF OWNER	
NAME (Please print or type) J. J. M. LAMBALK		NAME (Please print or type)	
CAPACITY OR TITLE DIRECTOR R & D	DATE 02/07/2007	CAPACITY OR TITLE	DATE

(See reverse for instructions and information collection burden statement)

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

Plant Variety Protection Office
Telephone: (301) 504-5518 **FAX:** (301) 504-5291
General E-mail: PVP@mail.usda.gov
Homepage: <http://www.ams.usda.gov/science/pvpo/PVPindex.htm>

#200700120

SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
(1) identify these varieties and state all differences objectively;
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

SEE ADDENDUM

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

SEE ADDENDUM

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Addendum
Form Application for Plant Variety Protection Certificate

Ad Paragraph 23: Dates of first sale & countries of lettuce variety Capsule

France	February, 2005
England	March, 2005
Australia	May, 2005
Italy	January, 2006
Sweden	August, 2005
Germany	July, 2005
Belgium	June, 2005
Iceland	June, 2005
USA	February 9, 2006

Ad Paragraph 24: Registration & IPR info of lettuce variety Capsule

Registration:

Europe	: B list
Instance	: NAK, Netherlands
Application date	: 03/31/2004
Application nr.	: 15285
Registration date	: 03/31/2006
Registration nr.	: 22395

IPR:

US Patent	: 6,903,249
Date	: June 7, 2005
Inventor	: Lambalk, et al.
Assignee	: Enza Zaden

revised

Exhibit A – Origin and Breeding History

Lettuce variety: CAPSULE

Origin

CAPSULE is derived from a cross made in August 1999 between the green oakleaf 'E19.6065', later called 'Shiren', and a butterhead line F44815.

The green oakleaf 'Shiren' is resistant to European *Bremia lactucae* races Bl: 1-16,21,23.

The butterhead line F44815 is originated from successive backcrosses of the accession CGN4683 with the butterhead varieties Thirza, Divina and Nadine. It contains a resistance gene providing the resistance to European *Bremia lactucae* races Bl: 1-25.

The objective of this cross was to develop a green oakleaf line resistant to *Bremia lactucae* races Bl: 1-25.

CAPSULE (experimental code E19.5761) is a green oakleaf used for babyleaf production, for year round harvests, resistant to European *Bremia lactucae* races Bl: 1-25. It is black seeded.

The pedigree method of plant breeding using single plant and mass selection was employed to develop this variety

Breeding Stages

- F1: August 1999 : the cross was made between 'Shiren' and the butterhead line F44815.
October 1999 : seeds from this cross were sown and 10 plants transplanted for multiplication in a greenhouse at Enza Holland facilities –Enkhuizen. Those plants were harvested in bulk in April 2000 under the F2 line number 29837.
- F2 : Seeds of the **F2 line 29837** were sown in peat blocks in May 2000 and, after evaluation of the young plants in the trays, transplanted in a selection field in the Enza France facilities in Allonnes (France) in June 2000. A single plant selection of 9 Italian green oakleaf- like plants was made in **August 2000**. Selected plants were transferred and transplanted in a heated glasshouse in Enza Holland facilities (Enkhuizen) for seed multiplication. Bioassays from leaf discs of those plants were carried out for resistance to *Bremia* races Bl:16 and Bl:18. Three (3) plants were resistant, and seeds of them were harvested individually in November 2000, providing seeds of the F3 generation.
- F3: Seeds of those F3 lines were sown in peat blocks in February 2001 and transplanted in March 2001 in a selection field in the Enza France facilities in Allonnes (France). Those lines were evaluated both at young stage (just before transplantation) and at fully mature stage, in **May 2001**. **F3 line 0032920** showed the most interesting leaf texture, shape and colour for babyleaf purpose. A single plant selection of 5 plants was made in this F3. Selected plants were transferred in a plastic tunnel greenhouse for seed multiplication. Bioassays from leaf discs of those plants were done for resistance to *Bremia* race Bl:18. Three (3) of them were resistant. Seeds of those plants were harvested individually, in September 2001, providing seeds of the F4 generation.
- F4: Seeds of those F4 lines were sown in peat blocks in October 2001 in Australia and transplanted early November 2001, in a breeding nursery in Griffith (New South Wales, Australia). Evaluation has been done at fully mature stage in **December 2001**. **F4 line 0135761** showed the most interesting leaf texture, shape and uniformity. This line was coded as the **new experimental variety E19.5761**. Six (6) plants were selected in this field, defoliated and left in the field for a seed multiplication. Seeds of those plants were harvested in February 2002, providing seeds of the F5 generation. Each lot was tested on seedling for *Bremia* races Bl:18 and Bl:21, and amongst them, the F5 line 0230717 was uniformly resistant.
- F5: Seeds of this F5 line 0230717 were sown for commercial seed production in Enkhuizen (Holland) in April 2002. This production was harvested in late September 2002

European registration of the variety was started in April 2004 by an application file submitted at the Naktuinbouw in Holland, and granted in March 2006. The name of 'CAPSULE' was proposed for the experimental number E19.5761.

Capsule has been evaluated in extensive trials in lettuce babyleaf growing areas in Europe, California and Arizona.

revised

The variety Capsule has been observed for 9 generations of reproduction and during the seed increase period since 2002, and was stable and uniform. 0% of variants have been observed in our selection and seed production fields.

revised

Exhibit B - Statement of Distinctiveness**Lettuce variety: CAPSULE**

Capsule is a black seeded, non-heading, green oak leaf lettuce specially developed for year-round baby leaf production.

Capsule is similar to the commercial baby leaf lettuce varieties Bambino and Seacrest, however, there are a number of differences:

- Capsule is resistant to California *Bremia lactucae* races CAVII and CAVIII while Bambino is susceptible to races CAVII and CAVIII. (exhibit D).
- Capsule is resistant to LMV (lettuce mosaic virus) while Seacrest and Bambino are susceptible to LMV (exhibit D & ref. pvp no. 200000021). The LMV resistance of Capsule is originated from the LMV-ga gene of the parent Nadine.
- Capsule is significant smaller in size and weight compared to Seacrest and Bambino (exhibit C).
- Capsule has a different leaf shape compared to Bambino and Seacrest. Capsule shows a broader leaf center and the leaf margin is less incised (moderate vs deep) compared to Bambino and Seacrest. (see pictures exhibit C).

Capsule has a light green color resembling 144A of the RHS color chart.

additions

Capsule

Bio-Assays

Leaf disc test *Bremia Lactucae*, CA VII isolate; Enza Zaden, San Juan Bautista, CA

3 leaf samples per plant, inoculation: 11/10/2006, final reading: 11/21/2006

Cultivar	total # plants	+	-	Result
Capsule (rep 1)	12	0	12	resistant
Capsule (rep 2)	12	0	12	resistant
Seacrest (rep 1)	12	2*	10	resistant
Seacrest (rep 2)	12	0	12	resistant

- no sporulation, + sporulation, * slight sporulation

Seedling test *Bremia Lactucae*, CA VII isolate; Enza Zaden, San Juan Bautista, CA

inoculation: 12/5/06, final reading: 12/20/06

Cultivar	tot # plants	+	-	Result
Capsule	15	0	15	resistant
Seacrest	17	0	17	resistant
Bambino	16	16	0	susceptible
Shiren	13	13	0	susceptible
FF44815	15	0	15	resistant

- no sporulation, + sporulation

Seedling test *Bremia Lactucae*, CA VIII isolate; Enza Zaden, San Juan Bautista, CA

inoculation: 1/30/07, final reading: 2/7/06

Cultivar	total # plants	+	-	Result
Capsule (rep 1)	16	2*	14**	resistant
Capsule (rep 2)	15	0	15	resistant
Capsule (rep 3)	15	0	15	resistant
Seacrest (rep 1)	16	4*	12**	resistant
Seacrest (rep 2)	16	0	16	resistant
Bambino (rep 1)	16	16	0	susceptible
Bambino (rep 2)	16	16	0	susceptible
Shiren (rep 1)	14	14	0	susceptible
Shiren (rep 2)	15	15	0	susceptible
F44815 (rep 1)	16	0	16	resistant
F44815 (rep 2)	16	0	16	resistant

- no sporulation, + sporulation, * slight sporulation on cotyledon, ** some necrosis on leaf

Seedling test LMV, Is1 (common strain)

Results from Enza Zaden, Enkhuizen, NL

Cultivar	total # plants	+	-	Result
Capsule	15	0	15	resistant

Seedling test *Bremia Lactucae*, CA VIII isolate; Enza Zaden, San Juan Bautista, CA

inoculation: 9/4/07, final reading: 9/12/07

Cultivar	total # plants	+	-	Result
Capsule	14	1*	13	resistant
Seacrest	16	0	16	resistant
Bambino	14	14	0	susceptible

- no sporulation, + sporulation, * slight sporulation on cotyledon

Seedling test *Bremia Lactucae*, CA VII isolate; Enza Zaden, San Juan Bautista, CA

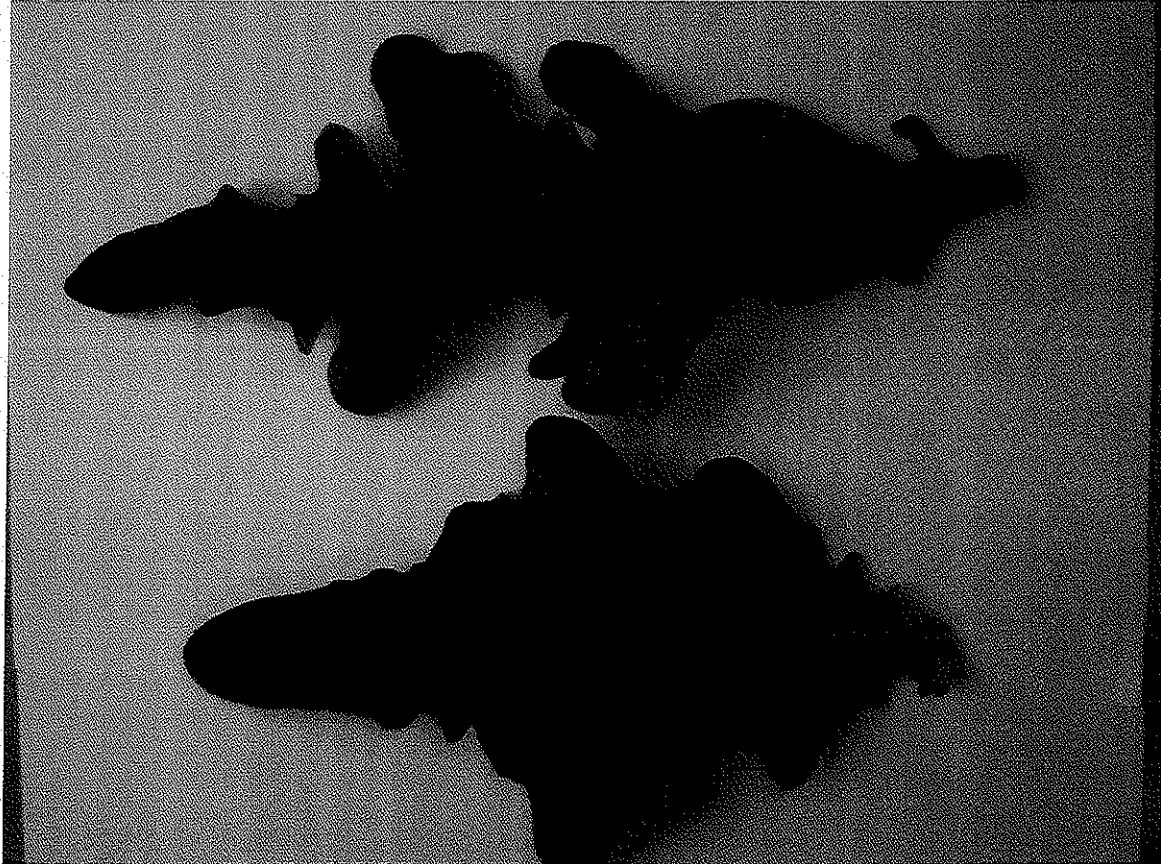
inoculation: 9/4/07, final reading: 9/12/07

Cultivar	total # plants	+	-	Result
Capsule	14	1*	13	resistant
Seacrest	15	0	15	resistant
Bambino	15	15	0	susceptible

- no sporulation, + sporulation, * slight sporulation on cotyledon

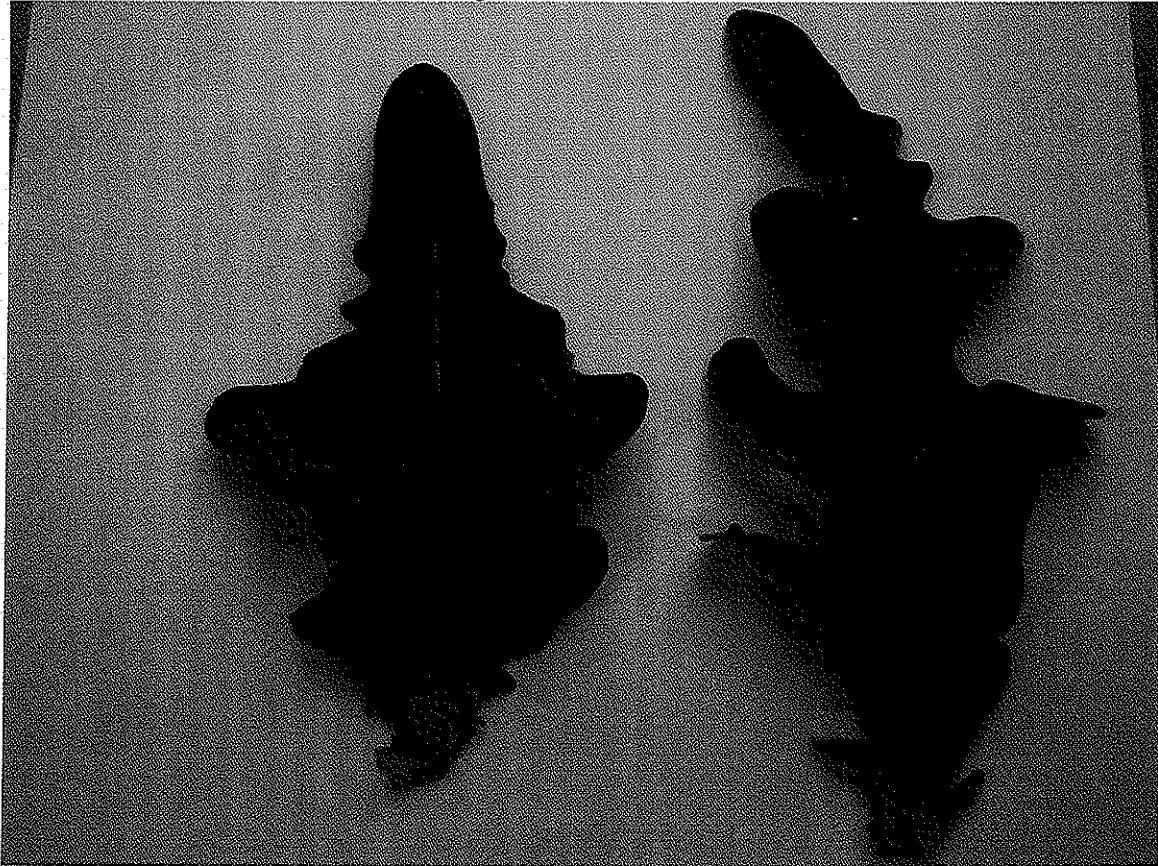
#200700120

Capsule (bottom) and Seacrest at baby leaf stage



#200700120

Capsule (left) and Bambino at baby leaf stage



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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Lettuce (*Lactuca sativa* L.)

NAME OF APPLICANT(S) ENZA ZADEN BEHEER B.V.	TEMPORARY OR EXPERIMENTAL DESIGNATION E19.5761	VARIETY NAME CAPSULE
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) PO BOX 7, 1600 AA ENKHUIZEN HALING 15, 1602 DB ENKHUIZEN NETHERLANDS		FOR OFFICIAL USE ONLY PVPO NUMBER #200700120

Place the appropriate number that describes the varietal character in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less. Measured data should be the mean of an appropriate number (at least 20) of well space plants. Royal Horticultural Society or any recognized color standard may be used to determine plant colors.

The Location of the Test Area is: **SAN JUAN BAUTISTA, CA**

Color System Used: **RHS 144A**

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties, which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Application Variety (a1) **CAPSULE** Most Similar Variety (c1) **BAMBINO**

Standard Regional Check Variety (c2) **SEACREST**

1. PLANT TYPE: (See List of Suggested Check Varieties on Page 8)

01 = Cutting/Leaf	04 = Cos or Romaine	07 = Salinas Group	10 = Latin
02 = Butterhead	05 = Great Lakes Group	08 = Eastern (Ithaca) Group	11 = Other (Specify) _____
03 = Bibb	06 = Vanguard Group	09 = Stem	

(a1) (c1) (c2)

2. SEED:

(a1) <input type="text" value="2"/>	} COLOR 1 = White (Silver Gray) 2 = Black (Grey Brown) 3 = Brown (Amber)	(a1) <input type="text" value="1"/>	} LIGHT DORMANCY 1 = Light Required 2 = Light Not Required	(a1) <input type="text" value="1"/>	} HEAT DORMANCY 1 = Susceptible 2 = Not Susceptible
(c1) <input type="text" value="2"/>		(c1) <input type="text" value="1"/>		(c1) <input type="text" value="1"/>	
(c2) <input type="text" value="2"/>		(c2) <input type="text" value="1"/>		(c2) <input type="text" value="1"/>	

3. COTYLEDON TO FOURTH LEAF STAGE: NOTE: Provide a color photograph or photocopy of the fourth leaf from 20 day-old seedling grown under optimal conditions.

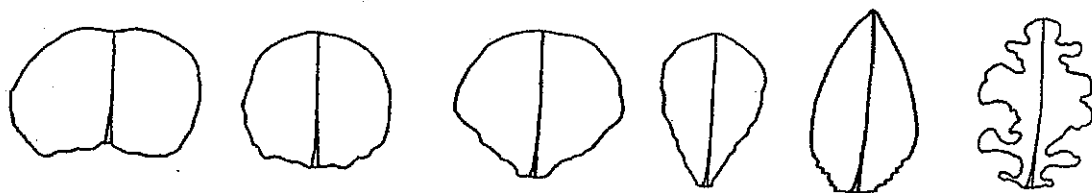
SHAPE OF COTYLEDONS: 1 = Broad 2 = Intermediate 3 = Spatulate

(a1) (c1) (c2)

SHAPE OF FOURTH LEAF: (a1) (c1) (c2)

3. COTYLEDON TO FOURTH LEAF STAGE: (continued)

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1. Transverse oval

2. Round

3. Oval

4. Elongated

5. Lanceolate

6. Pinnately lobed

LENGTH/WIDTH INDEX OF FOURTH LEAF: LW x 10

(a1) 30(c1) 35(c2) 39

APICAL MARGIN:

 1 = Entire
 2 = Crenate/Gnawed
 3 = Finely Dentate

 4 = Moderately Dentate
 5 = Coarsely Dentate
 6 = Incised

 7 = Lobed
 8 = Other (Specify) _____
(a1) 7(c1) 7(c2) 7

BASAL MARGIN: (Use the options for Apical Margin above)

(a1) 4(c1) 4(c2) 4

UNDULATION:

1 = Flat

2 = Slight

3 = Medium

4 = Marked

(a1) 1(c1) 1(c2) 1

GREEN COLOR:

 1 = Yellow Green
 2 = Light Green

 3 = Medium Green
 4 = Dark Green

 5 = Blue Green
 6 = Silver Green

7 = Grey Green

(a1) 2(c1) 3(c2) 3-4

ANTHOCYANIN:

DISTRIBUTION:

 1 = Absent
 2 = Margin Only

 3 = Spotted
 4 = Throughout

5 = Other (Specify) _____

(a1) 1(c1) 1(c2) 1

CONCENTRATION:

1 = Light

2 = Moderate

3 = Intense

(a1) /(c1) /(c2) /

ROLLING:

1 = Absent

2 = Present

(a1) 1(c1) 1(c2) 1

CUPPING:

1 = Uncupped

2 = Slight

3 = Markedly

(a1) 1(c1) 1(c2) 1

REFLEXING:

1 = None

2 = Apical Margin

3 = Lateral Margins

(a1) 1(c1) 1(c2) 1

4. MATURE LEAVES (Observe Harvest-Mature Outer Leaves)

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NOTE: Provide color photo of a harvest-mature leaf which accurately shows color and margin characteristics.

MARGIN:**INCISION DEPTH:**
(deepest penetration
of the margin)

1 = Absent/Shallow (Dark Green Boston)

2 = Moderate (Vanguard)

3 = Deep (Great Lakes 659)

(a1)

(c1)

(c2)

INDENTATION: (Finest divisions of the margin)

1 = Entire (Dark Green Boston)

4 = Crenate (Vanguard)

2 = Shallowly Dentate (Great Lakes 65)

5 = Other (Specify) _____

3 = Deeply Dentate (Great Lakes 659)

(a1)

(c1)

(c2)

**UNDULATIONS OF THE
APICAL MARGIN:**

1 = Absent/Slight (Dark Green Boston) 2 = Moderate (Vanguard)

3 = Strong (Great Lakes 659)

(a1)

(c1)

(c2)

GREEN COLOR:

1 = Very Light Green (Bibb)

3 = Medium Green (Great Lakes)

5 = Very Dark Green

2 = Light Green (Minetto)

4 = Dark Green (Vanguard)

6 = Other (Specify) _____

(a1)

(c1)

(c2)

ANTHOCYANIN:**DISTRIBUTION:**

1 = Absent

3 = Spotted (California Cream Butter)

5 = Other (Specify) _____

2 = Margin Only (Big Boston)

4 = Throughout (Prize Head)

(a1)

(c1)

(c2)

CONCENTRATION:

1 = Light (Iceberg)

2 = Moderate (Prize Head)

3 = Intense (Ruby)

(a1)

(c1)

(c2)

SIZE:

1 = Small

2 = Medium

3 = Large

(a1)

(c1)

(c2)

GLOSSINESS:

1 = Dull (Vanguard)

2 = Moderate (Salinas)

3 = Glossy (Great Lakes)

(a1)

(c1)

(c2)

BLISTERING:1 = Absent/Slight
(Salinas)2 = Moderate
(Vanguard)3 = Strong
(Prize Head)

(a1)

(c1)

(c2)

LEAF THICKNESS:

1 = Thin

2 = Intermediate

3 = Thick

(a1)

(c1)

(c2)

TRICHOMES:

1 = Absent (Smooth)

2 = Present (Spiny)

(a1)

(c1)

(c2)

5. PLANT:**SPREAD OF FRAME LEAVES:**

(a1)

cm

(c1)

cm

(c2)

cm

RAB
12/20/07

5. PLANT: (continued)

HEAD DIAMETER: (Market Trimmed with Single Cap Leaf) ³⁷(a1) ~~39~~ cm(c1) ~~45~~ cm(c2) ~~49~~ ⁵⁷ cm

HEAD SHAPE:

1 = Flattened

3 = Spherical

5 = Non-Heading

2 = Slightly Flattened

4 = Elongate

6 = Other (Specify) _____

(a1) ~~5~~(c1) ~~5~~(c2) ~~5~~

HEAD SIZE CLASS:

1 = Small

2 = Medium

3 = Large

(a1) ~~1~~(c1) ~~2~~(c2) ~~3~~

HEAD PER CARTON:

(a1) ~~1~~(c1) ~~1~~(c2) ~~1~~

HEAD WEIGHT:

(a1) ~~401~~ ⁸⁷⁹ g.(c1) ~~1097~~ g.(c2) ~~606~~ ¹⁰³⁶ g.

HEAD FIRMNESS:

1 = Loose

2 = Moderate

3 = Firm

4 = Very Firm

(a1) ~~1~~(c1) ~~1~~(c2) ~~1~~

6. BUTT:

SHAPE:

1 = Slightly Concave

2 = Flat

3 = Rounded

(a1) ~~3~~(c1) ~~3~~(c2) ~~3~~

MIDRIB:

1 = Flattened (Salinas)

2 = Moderately Raised

3 = Prominently Raised (Great Lakes 659)

(a1) ~~3~~(c1) ~~3~~(c2) ~~3~~

7. CORE:

DIAMETER AT BASE OF HEAD:

(a1) ~~29~~ ³⁹ mm(c1) ~~38~~ mm(c2) ~~27~~ ³⁹ mm

RATIO OF HEAD DIAMETER/CORE DIAMETER:

(a1) ~~18.4~~ ^{9.5}(c1) ~~11.8~~(c2) ~~18.1~~ ^{15.0}

CORE HEIGHT FROM BASE OF HEAD TO APEX:

(a1) ~~53~~ ¹¹⁵ mm(c1) ~~103~~ mm(c2) ~~49~~ ⁹³ mm8. BOLTING: (Give First Water Date: 1/5/07)

NOTE: First Water Date is the date seed first receives adequate moisture to germinate. This can and often does equal the planting date.

NUMBER OF DAYS FROM FIRST WATER DATE TO SEED STALK EMERGENCE: (summer conditions)

(a1) ~~105~~(c1) ~~103~~(c2) ~~109~~

BOLTING CLASS:

1 = Very Slow

3 = Medium

5 = Very Rapid

2 = Slow

4 = Rapid

(a1) ~~4~~(c1) ~~4~~(c2) ~~4~~

HEIGHT OF MATURE SEED STALK:

~~133~~~~155~~~~163~~

8. BOLTING: (continued)

12/15/07
07/17/07

SPREAD OF BOLTER PLANT: (At widest point)

(a1) cm (c1) cm (c2) cm

BOLTER LEAVES: 1 = Straight 2 = Curved

(a1) (c1) (c2)

MARGIN: 1 = Entire 2 = Dentate

(a1) (c1) (c2)

COLOR: 1 = Light Green 2 = Medium Green 3 = Dark Green

(a1) (c1) (c2)

BOLTER HABIT:

TERMINAL INFLORESCENCE: 1 = Absent 2 = Present

(a1) (c1) (c2)

LATERAL SHOOTS: 1 = Absent 2 = Present

(a1) (c1) (c2)

BASAL SIDE SHOOTS: 1 = Absent 2 = Present

(a1) (c1) (c2)

9. MATURITY: (earliness of harvest-mature head formation)

NOTE: Complete this section for at least one season.

SEASON	APPLICATION VARIETY No. of Days ¹			MOST SIMILAR VARIETY No. of Days ¹			STANDARD REGIONAL CHECK VARIETY No. of Days ¹		
Spring	<i>1</i>	<i>52</i>		<i>1</i>	<i>45</i>		<i>1</i>	<i>45</i>	
Summer	<i>1</i>	<i>30</i>		<i>1</i>	<i>26</i>		<i>1</i>	<i>26</i>	
Fall	<i>1</i>	<i>89</i>	<i>2</i> <i>43</i>	<i>1</i>	<i>38</i>	<i>2</i>	<i>1</i>	<i>89</i>	<i>2</i> <i>38</i>
Winter	<i>1</i>	<i>65</i>		<i>1</i>	<i>59</i>		<i>1</i>	<i>59</i>	

¹First Water Date to Harvest

Give Planting Date(s) and Location(s):

Spring: *1) 2/18/2006 GONZALES, CA (BABY LEAF)*
 Summer: *1) 7/17/2006 SAN JUAN BAUTISTA, CA (BABY LEAF)*
 Fall: *1) 8/31/2006 SAN JUAN BAUTISTA, CA (FULL MATURITY), 2) 8/28/2006 CHULAR, CA (BABY LEAF)*
 Winter: *1) 11/8/2006 YUMA, AZ (BABY LEAF)*

10. ADAPTATION:

PRIMARY REGIONS OF ADAPTATION (tested and proven adapted):

0 = Not Tested 1 = Not Adapted 2 = Adapted

Southwest (CA and/or AZ desert) West Coast Northeast
 North Central Southeast Other (Specify) _____

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10. ADAPTATION: (Continued)

SEASON:

☐ 2 Spring (Area WEST COAST, SOUTH WEST) ☐ 2 Fall (Area WEST COAST, SOUTH WEST)
☐ 2 Summer (Area WEST COAST) ☐ 2 Winter (Area SOUTH WEST)

☐ 0 GREENHOUSE: 0 = Not Tested 1 = Not Adapted 2 = Adapted
☐ 1 SOIL TYPE: 1 = Mineral 2 = Organic 3 = Both

11. VIRAL DISEASES:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Big Vein	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Lettuce Mosaic	(a1)	<input type="checkbox"/> 3	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 7
Cucumber Mosaic	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Tomato Bushy Stunt, cause of dieback	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Turnip Mosaic	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Beet Western Yellows	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Lettuce Infectious Yellows	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Other (Specify) _____	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>

0 = not tested

12. FUNGAL/BACTERIAL DISEASES:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Corky Root Rot (Races: _____)	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Downy Mildew (Races: <u>CA VII, VIII</u>)	(a1)	<input type="checkbox"/> 3	(c1)	<input type="checkbox"/> 7	(c2)	<input type="checkbox"/> 3
Powdery Mildew	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Sclerotinia Drop	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Bacterial Soft Rot (<i>Pseudomonas</i> spp. and others)	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Botrytis (Grey Mold)	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Verticillium Wilt	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Bacterial Leaf Spot	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Anthracnose	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Other (Specify) _____	(a1)	<input type="checkbox"/>	(c1)	<input type="checkbox"/>	(c2)	<input type="checkbox"/>

0 = not tested

13. INSECTS:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Cabbage Loopers	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Root Aphids	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Green Peach Aphid	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0
Lettuce Aphid	(a1)	<input type="checkbox"/> 0	(c1)	<input type="checkbox"/> 0	(c2)	<input type="checkbox"/> 0

0 = not tested

Pea Leafminer	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Other (Specify) _____	(a1)	<input type="text"/>	(c1)	<input type="text"/>	(c2)	<input type="text"/>

14. PHYSIOLOGICAL STRESSES:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Tipburn	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Heat	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/> 0 = not tested
Drought	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Cold	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Salt	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Brown Rib (Rib Discoloration, Rib Blight)	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Other (Specify) _____	(a1)	<input type="text"/>	(c1)	<input type="text"/>	(c2)	<input type="text"/>

15. POST HARVEST STRESS:

1 = Immune 3 = Resistant 5 = Moderately Resistant/Moderately Susceptible 7 = Susceptible 9 = Highly Susceptible

Pink Rib	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/> 0 = not tested
Russet Spotting	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Rusty Brown Discoloration	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Internal Rib Necrosis (Blackheart, Grey Rib, Grey Streak)	(a1)	<input type="text" value="0"/>	(c1)	<input type="text" value="0"/>	(c2)	<input type="text" value="0"/>
Brown Stain	(a1)	<input type="text"/>	(c1)	<input type="text"/>	(c2)	<input type="text"/>

16. BIOCHEMICAL OR ELECTROPHORETIC MARKERS:

17. COMMENTS:

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SUGGESTED CHECK VARIETIES

<u>TYPE</u>	<u>CHECK VARIETY</u>
1 Cutting/Leaf	Waldmann's Green
2 Butterhead	Dark Green Boston
3 Bibb	Bibb
4 Cos or Romain	Parris Island
5 Great Lakes Group	Great Lakes 659-700
6 Vanguard Group	Vanguard
7 Salinas Group	Salinas
8 Eastern Group	Ithaca
9 Stem	Celtuce
10 Latin	Little Gem

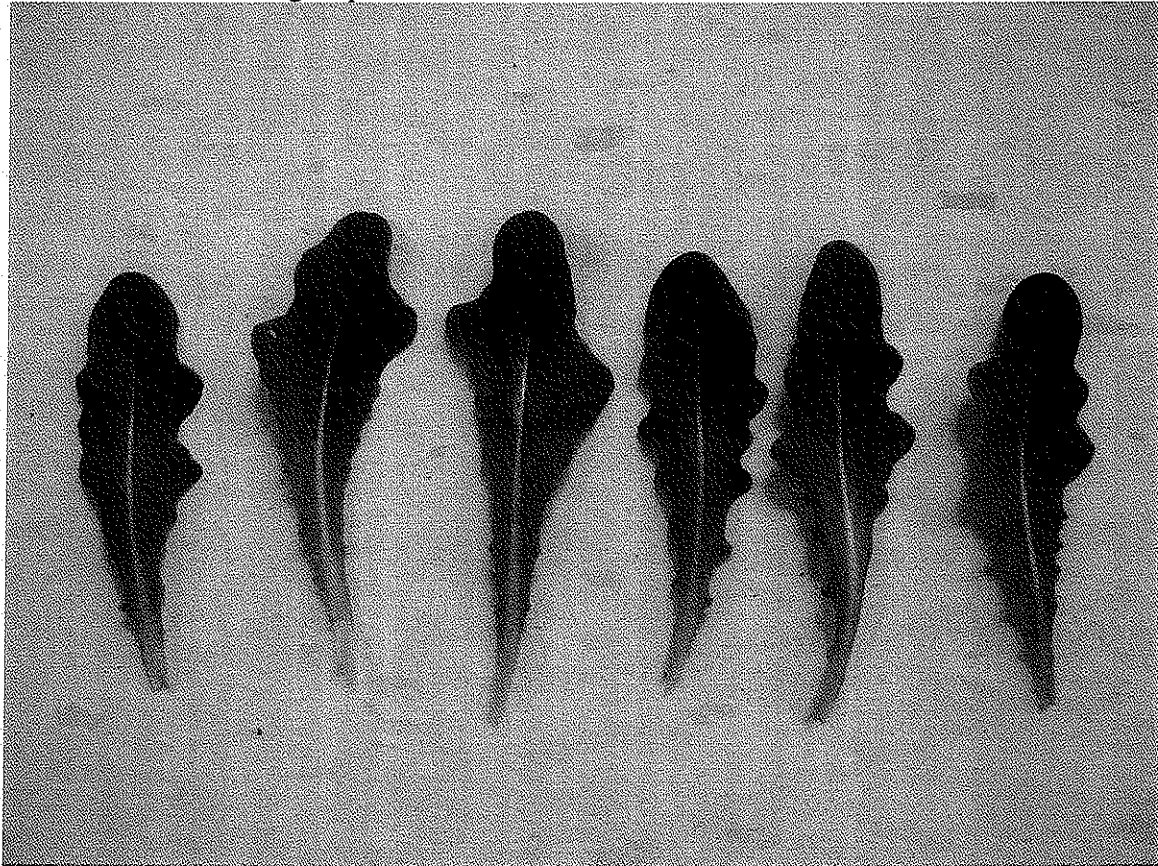
REFERENCES

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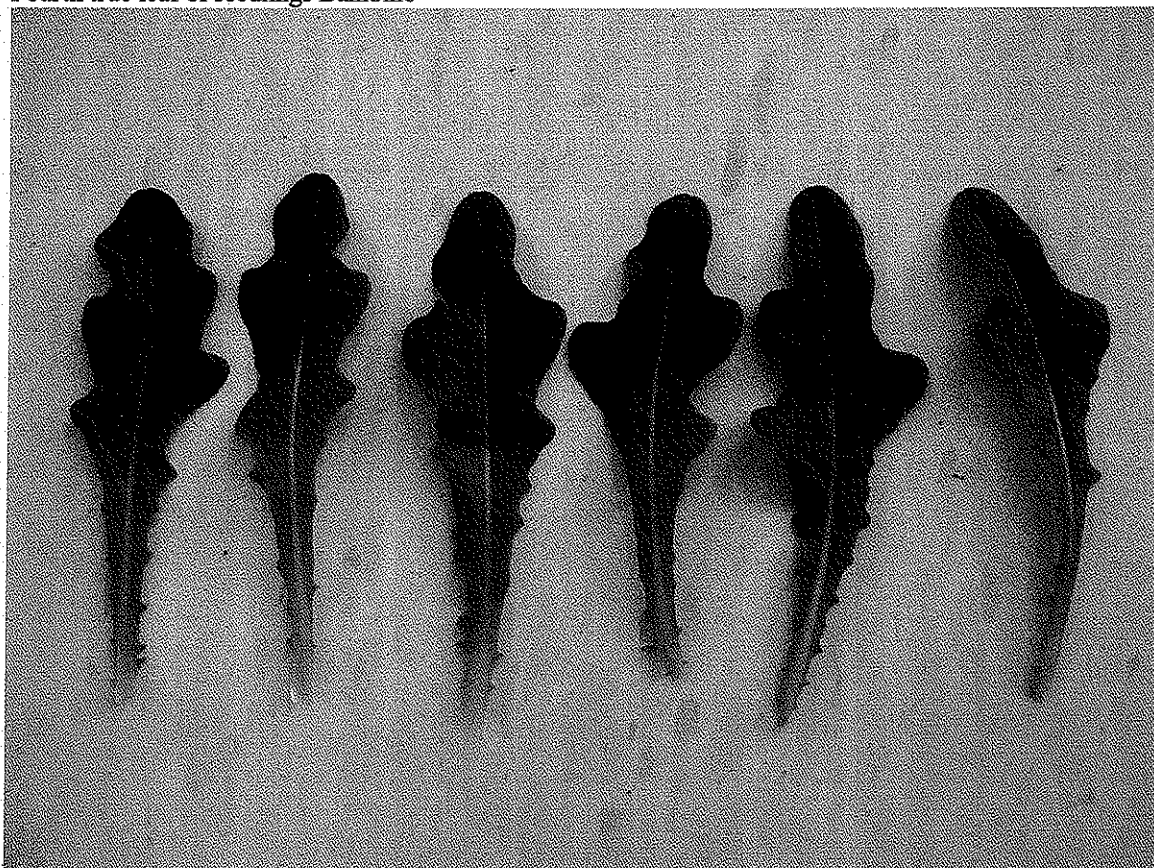
**Exhibit C – Capsule
Pictures**

Fourth true leaf of seedlings Capsule



**Exhibit C – Capsule
Pictures**

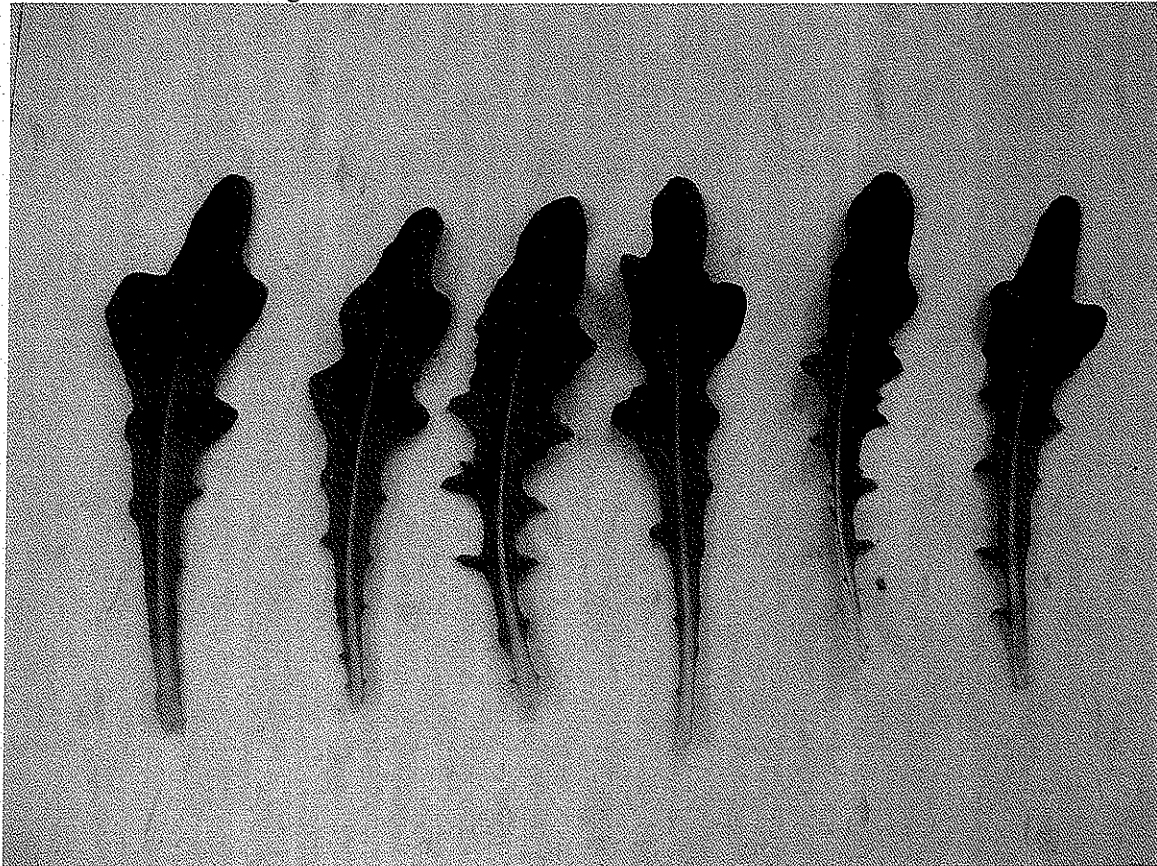
Fourth true leaf of seedlings Bambino



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**Exhibit C – Capsule
Pictures**

Fourth true leaf of seedlings Seacrest



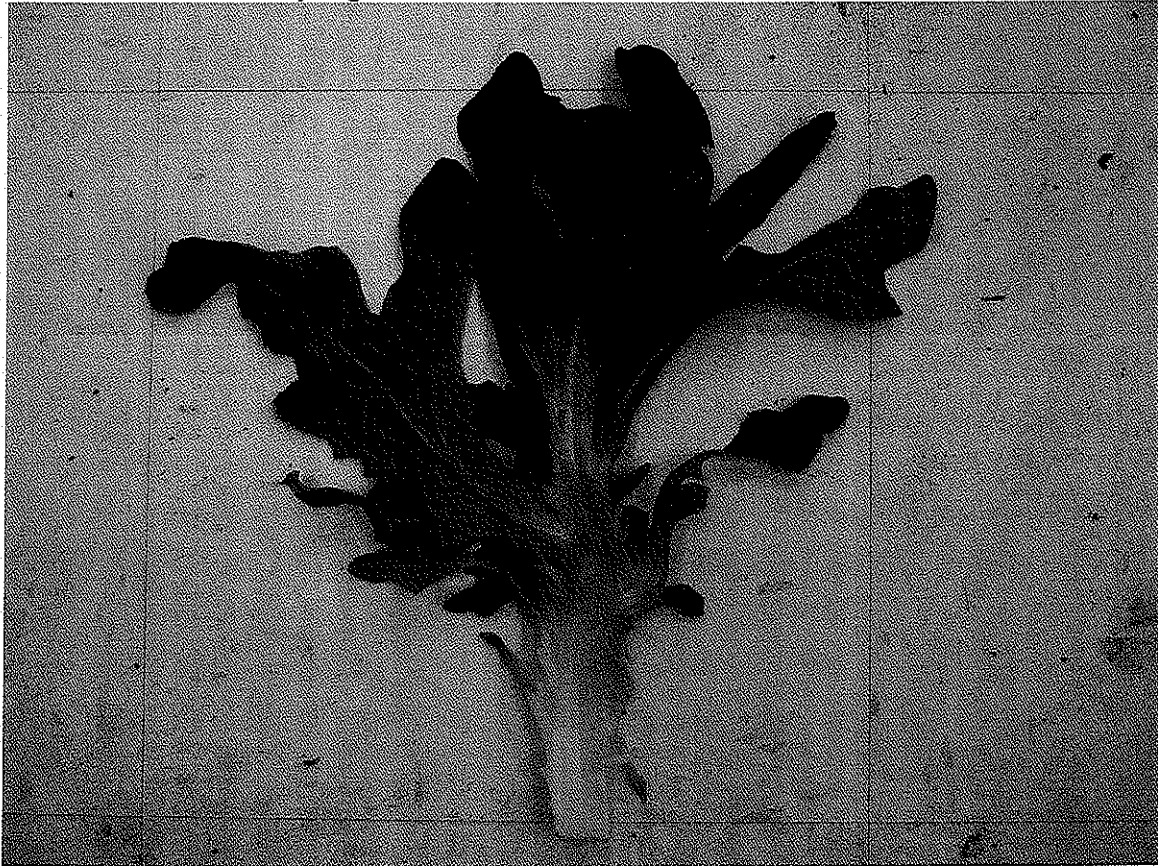
**Exhibit C – Capsule
Pictures**

Capsule leaf at full maturity stage



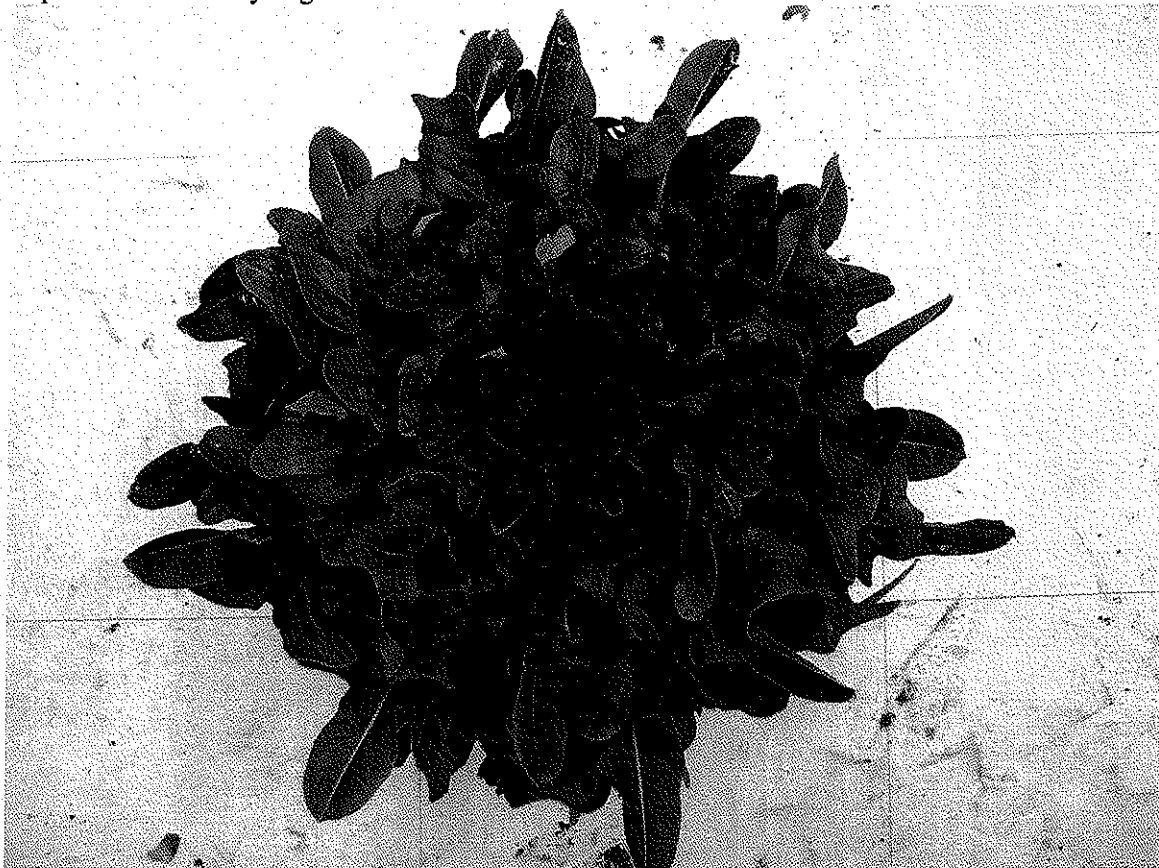
**Exhibit C – Capsule
Pictures**

Seacrest leaf at full maturity stage



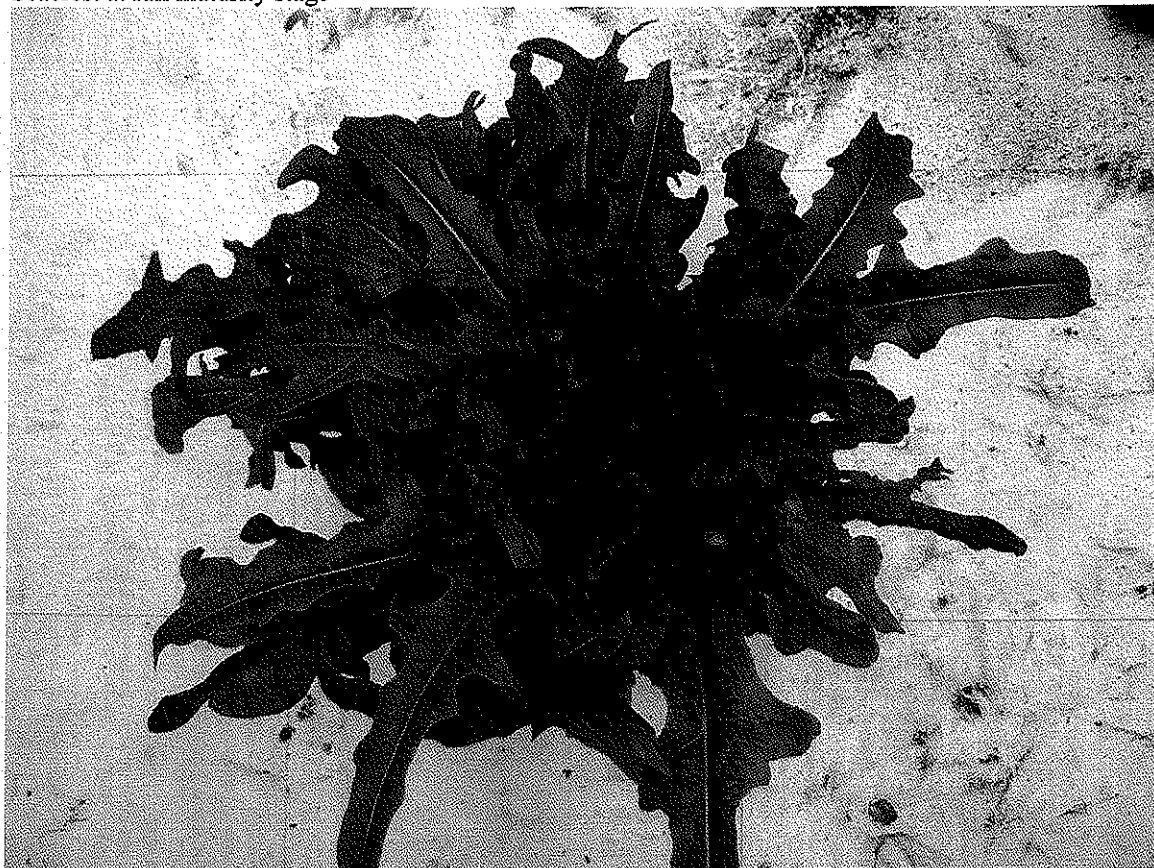
**Exhibit C – Capsule
Pictures**

Capsule at full maturity stage



**Exhibit C – Capsule
Pictures**

Seacrest at full maturity stage



- Capsule

Seedling measurements at 4th leaf stage: Capsule, Bambino, Seacrest

Plt #	Capsule			Bambino			Seacrest		
	Length (cm)	Width (cm)	ratio (l/w*10)	Length (cm)	Width (cm)	ratio (l/w*10)	Length (cm)	Width (cm)	ratio (l/w*10)
1	10.4	3.1	33.5	12.2	3.9	31.3	13.0	3.3	39.4
2	9.8	3.0	32.7	11.9	3.4	35.0	11.5	2.6	44.2
3	10.3	3.2	32.2	12.0	3.7	32.4	11.9	3.4	35.0
4	9.7	3.1	31.3	10.4	3.0	34.7	12.2	2.9	42.1
5	11.2	3.4	32.9	11.2	3.3	33.9	12.2	3.2	38.1
6	9.8	3.8	25.8	10.9	3.1	35.2	14.0	3.4	41.2
7	10.1	3.7	27.3	10.2	2.4	42.5	12.5	2.8	44.6
8	9.6	3.0	32.0	11.3	3.5	32.3	12.6	3.3	38.2
9	11.4	3.3	34.5	11.7	3.1	37.7	13.1	3.3	39.7
10	11.1	3.6	30.8	11.4	3.8	30.0	14.0	3.9	35.9
11	9.7	2.7	35.9	10.5	2.7	38.9	12.6	2.7	46.7
12	8.6	3.2	26.9	12.0	3.3	36.4	11.9	3.2	37.2
13	9.9	3.6	27.5	11.1	4.0	27.8	13.3	3.3	40.3
14	10.0	3.0	33.3	11.3	2.8	40.4	11.9	3.2	37.2
15	10.4	3.5	29.7	10.2	3.0	34.0	12.4	2.9	42.8
16	9.3	4.3	21.6	10.0	2.8	35.7	11.9	3.8	31.3
17	9.7	3.6	26.9	11.6	2.8	41.4	12.0	3.0	40.0
18	9.2	3.0	30.7	10.0	3.1	32.3	11.0	3.0	36.7
19	9.1	3.4	26.8	10.0	3.1	32.3	12.0	3.7	32.4
20	9.3	3.8	24.5	9.6	3.1	31.0	11.9	3.6	33.1
Mean	9.9	3.4	29.8	11.0	3.2	34.7	12.4	3.2	38.8
StDev	0.72	0.38	3.76	0.81	0.42	3.90	0.77	0.36	4.14

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- Capsule

Quantitative Data

SJB1 San Juan Bautista, California, REP 1
 SJB2 San Juan Bautista, California, REP 2

sowing: 8/31/06
 idem

transplant: 10/4/06
 idem

evaluation: 11/27/06
 idem

Trial	Plt#	Spread of Frame Leaves (cm)			Weight (grams)			Plant Diameter (cm)			Plant Height (cm)		
		Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
SJB1	1	46.3	82.5	-	298.1	527.8	-	36.0	51.4	-	28.1	41.7	-
SJB1	2	46.5	79.0	-	309.8	722.4	-	35.8	47.4	-	25.9	47.9	-
SJB1	3	47.0	77.2	-	545.6	578.0	-	42.0	54.3	-	30.8	45.8	-
SJB1	4	41.3	67.5	-	247.7	629.5	-	29.9	51.8	-	26.1	38.4	-
SJB1	5	39.8	65.8	-	249.1	489.6	-	35.5	48.2	-	22.0	40.2	-
SJB1	6	48.7	79.8	-	493.1	566.7	-	38.7	51.2	-	23.5	46.0	-
SJB1	7	45.0	65.7	-	315.0	625.2	-	35.0	56.3	-	24.0	41.9	-
SJB1	8	45.9	77.0	-	476.4	584.1	-	41.0	49.0	-	26.1	44.8	-
SJB1	9	43.5	74.0	-	474.8	642.5	-	35.5	54.4	-	27.9	44.2	-
SJB1	10	41.2	71.3	-	258.9	646.3	-	35.2	50.0	-	22.0	39.1	-
SJB1	11	43.9	74.7	-	362.8	690.0	-	36.2	51.0	-	26.1	50.8	-
SJB1	12	41.9	73.1	-	331.2	663.7	-	38.5	41.9	-	27.1	45.2	-
SJB1	13	44.3	73.8	-	551.9	380.5	-	40.2	44.0	-	28.0	45.4	-
SJB1	14	43.6	70.4	-	278.9	665.9	-	36.2	54.5	-	22.0	40.2	-
SJB1	15	44.5	78.0	-	410.8	803.0	-	40.0	58.1	-	25.8	45.0	-
SJB1	16	44.0	78.3	-	375.8	711.5	-	36.6	51.6	-	25.0	45.3	-
SJB1	17	46.2	68.2	-	419.8	696.0	-	38.5	54.1	-	25.2	42.8	-
SJB1	18	42.1	71.9	-	424.3	550.0	-	35.9	49.5	-	26.1	41.4	-
SJB1	19	43.7	73.8	-	412.9	562.0	-	38.4	43.1	-	23.1	42.3	-
SJB1	20	43.8	74.1	-	324.0	518.7	-	40.5	46.4	-	23.6	42.0	-
SJB2	1	44.0	73.0	-	321.6	651.8	-	37.1	54.2	-	26.1	48.1	-
SJB2	2	47.0	71.6	-	361.5	806.5	-	38.5	53.9	-	25.6	46.9	-
SJB2	3	48.5	73.8	-	391.9	511.1	-	42.2	49.3	-	25.9	39.1	-
SJB2	4	45.3	72.5	-	374.5	562.9	-	38.0	46.8	-	25.0	40.9	-
SJB2	5	48.0	70.9	-	379.2	655.2	-	36.8	46.2	-	25.6	41.9	-
SJB2	6	48.1	66.0	-	399.5	490.9	-	38.7	49.7	-	27.3	38.3	-
SJB2	7	48.0	69.5	-	462.8	620.5	-	44.5	57.6	-	27.2	42.2	-
SJB2	8	47.8	74.7	-	416.0	590.0	-	40.8	52.4	-	24.9	46.4	-
SJB2	9	46.5	62.4	-	520.1	485.8	-	44.1	53.1	-	28.7	45.6	-
SJB2	10	49.6	72.4	-	530.9	719.0	-	44.0	44.9	-	29.8	46.3	-
SJB2	11	44.8	79.5	-	419.2	576.2	-	39.2	48.0	-	24.0	44.8	-
SJB2	12	46.2	74.8	-	410.9	478.9	-	40.0	41.7	-	25.3	45.9	-
SJB2	13	47.5	70.0	-	401.2	484.4	-	36.1	42.3	-	28.0	43.9	-
SJB2	14	44.3	80.2	-	375.1	686.3	-	36.0	47.7	-	23.0	45.4	-
SJB2	15	44.9	72.0	-	394.0	523.7	-	36.5	41.1	-	24.9	44.7	-
SJB2	16	46.2	72.4	-	418.5	410.0	-	35.7	39.9	-	24.3	37.7	-
SJB2	17	50.2	80.9	-	466.0	669.7	-	45.3	42.9	-	28.0	44.2	-
SJB2	18	47.4	74.0	-	357.9	796.0	-	37.5	50.8	-	23.9	47.9	-
SJB2	19	46.4	72.0	-	498.5	617.6	-	41.0	42.9	-	26.0	40.3	-
SJB2	20	51.3	75.0	-	570.4	634.1	-	45.6	41.8	-	28.3	44.2	-
Mean SJB1		44.2	73.8	-	378.0	612.7	-	37.3	50.4	-	25.4	43.5	-
St.Dev. SJB1		2.2	4.7	-	95.9	95.9	-	2.8	4.4	-	2.3	3.1	-
Mean SJB2		47.1	72.9	-	423.5	598.5	-	39.9	47.4	-	26.1	43.7	-
St.Dev. SJB2		1.9	4.4	-	64.8	107.6	-	3.4	5.2	-	1.8	3.1	-
Mean SJB1+2		45.6	73.3	-	400.8	605.6	-	38.6	48.9	-	25.8	43.6	-
St.Dev. SJB1+2		2.5	4.5	-	84.0	100.8	-	3.3	5.0	-	2.1	3.1	-

- Capsule (continue)

Quantitative Data

SJB1 San Juan Bautista, California, REP 1
 SJB2 San Juan Bautista, California, REP 2

sowing: 8/31/06
 idem

transplant: 10/4/06
 idem

evaluation: 11/27/06
 idem

Trial	Plt#	Width Leaf (cm)			Length Leaf (cm)			Core Length (mm)			Core Diameter (mm)		
		Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
SJB1-1	1	22.9	22.1	-	22.9	37.9	-	41.0	36.2	-	22.5	24.1	-
SJB1	2	21.5	29.8	-	28.8	35.3	-	52.1	65.4	-	25.3	29.5	-
SJB1	3	22.0	20.9	-	23.9	37.0	-	49.3	53.2	-	32.1	30.1	-
SJB1	4	19.4	24.0	-	21.5	27.8	-	42.1	52.3	-	22.4	29.9	-
SJB1	5	18.7	18.7	-	19.9	30.2	-	44.8	33.7	-	22.0	21.8	-
SJB1	6	24.1	19.5	-	21.2	37.6	-	46.5	57.2	-	27.4	28.6	-
SJB1	7	20.3	20.3	-	19.8	34.1	-	48.1	51.7	-	27.5	28.6	-
SJB1	8	19.7	24.0	-	21.0	38.9	-	56.8	55.1	-	29.1	22.4	-
SJB1	9	21.8	24.4	-	24.2	33.0	-	70.6	47.3	-	28.5	24.8	-
SJB1	10	20.3	29.2	-	18.9	33.8	-	38.6	49.2	-	22.1	23.4	-
SJB1	11	22.6	21.5	-	21.5	39.8	-	52.1	54.9	-	26.3	27.2	-
SJB1	12	22.5	26.5	-	22.9	36.0	-	52.1	48.4	-	26.2	28.8	-
SJB1	13	22.9	29.4	-	21.5	39.6	-	59.0	40.2	-	32.8	29.2	-
SJB1	14	21.7	25.8	-	21.6	36.9	-	41.4	54.8	-	26.1	28.7	-
SJB1	15	19.8	32.4	-	19.5	33.0	-	56.3	62.0	-	28.7	27.2	-
SJB1	16	19.0	24.4	-	22.7	39.6	-	48.2	53.1	-	28.4	24.6	-
SJB1	17	22.0	29.3	-	22.5	33.2	-	58.2	43.2	-	30.0	29.5	-
SJB1	18	21.6	24.2	-	21.0	39.0	-	55.0	46.0	-	29.8	28.6	-
SJB1	19	20.3	27.1	-	22.0	39.2	-	56.1	52.2	-	29.9	28.1	-
SJB1	20	18.9	25.7	-	20.5	39.6	-	46.8	54.1	-	25.4	29.2	-
SJB2	1	20.4	27.5	-	21.1	35.6	-	51.3	55.2	-	27.4	26.8	-
SJB2	2	22.3	37.2	-	24.0	38.5	-	49.8	57.0	-	27.3	29.2	-
SJB2	3	20.3	23.0	-	24.0	36.3	-	56.1	39.6	-	28.2	28.2	-
SJB2	4	19.3	21.0	-	20.4	32.8	-	46.3	39.9	-	28.1	24.1	-
SJB2	5	24.8	33.9	-	22.8	37.8	-	43.4	41.8	-	28.2	27.4	-
SJB2	6	23.1	19.8	-	24.2	32.6	-	51.4	38.8	-	29.5	20.6	-
SJB2	7	23.9	23.8	-	23.1	39.3	-	54.2	41.5	-	34.8	24.8	-
SJB2	8	23.2	26.2	-	23.9	38.8	-	54.3	53.8	-	28.7	31.2	-
SJB2	9	23.1	23.4	-	22.8	37.1	-	68.2	40.8	-	34.9	25.2	-
SJB2	10	25.3	22.7	-	22.7	32.6	-	66.2	61.7	-	34.5	23.8	-
SJB2	11	19.3	22.5	-	21.0	36.9	-	54.8	42.4	-	31.1	25.8	-
SJB2	12	23.0	22.0	-	24.5	34.8	-	55.2	37.8	-	29.3	25.2	-
SJB2	13	22.4	25.7	-	23.8	37.9	-	52.8	41.3	-	30.0	26.8	-
SJB2	14	21.4	38.2	-	23.8	36.1	-	40.8	61.2	-	27.2	22.6	-
SJB2	15	20.7	29.9	-	19.3	38.7	-	63.1	51.5	-	27.3	25.0	-
SJB2	16	22.6	26.8	-	21.8	37.0	-	69.0	34.4	-	32.1	24.8	-
SJB2	17	23.3	20.9	-	24.8	32.2	-	58.2	35.3	-	31.3	26.5	-
SJB2	18	21.0	19.8	-	25.4	36.4	-	54.5	50.5	-	26.8	27.4	-
SJB2	19	21.0	33.0	-	23.0	35.8	-	71.8	47.2	-	34.5	29.2	-
SJB2	20	23.2	32.5	-	24.5	35.7	-	57.1	58.6	-	32.2	27.1	-
Mean SJB1		21.1	25.0	-	21.9	36.1	-	50.8	50.5	-	27.1	27.2	-
St.Dev. SJB1		1.6	3.8	-	2.1	3.4	-	7.7	7.9	-	3.2	2.7	-
Mean SJB2		22.2	26.5	-	23.0	36.1	-	55.9	46.5	-	30.2	26.1	-
St.Dev. SJB2		1.7	5.8	-	1.6	2.2	-	8.3	8.9	-	2.8	2.4	-
Mean SJB1+2		21.6	25.7	-	22.5	36.1	-	53.3	48.5	-	28.6	26.7	-
St.Dev. SJB1+2		1.7	4.9	-	2.0	2.8	-	8.3	8.5	-	3.4	2.6	-

Capsule

Statistical analysis: Capsule vs Seacrest

SJB1 San Juan Bautista, California, REP 1 sowing:08/31/06 transplant: 10/04/06 evaluation: 11/27/06
 n=20, F(.05) = 3.97, F(.01) = 6.98
 SJB2 San Juan Bautista, California, REP 2 idem idem idem
 idem

Trial:	SJB 1		SJB 2	
	Capsule	Seacrest	Capsule	Seacrest
<u>Spread of Frame Leaves (cm):</u>				
Mean	44.2	73.8	47.1	72.9
Std Dev.	2.2	4.7	1.9	4.4
ANOVA (F calc.):	Rep = 1.63 ns			
	Var = 1232.4 **			
	Rep x Var = 6.00 *			
<u>Weight (grams):</u>				
Mean	378.0	612.7	423.5	598.5
Std Dev.	95.9	95.9	64.8	107.6
ANOVA (F calc.):	Rep = 0.57 ns			
	Var = 98.25 **			
	Rep x Var = 2.08 ns			
<u>Plant Diameter (cm):</u>				
Mean	37.3	50.4	39.9	47.4
Std Dev.	2.8	4.4	3.4	5.2
ANOVA (F calc.):	Rep = 0.063 ns			
	Var = 131.5 **			
	Rep x Var = 9.88 **			
<u>Plant Height (cm):</u>				
Mean	25.4	43.5	26.1	43.7
Std Dev.	2.3	3.1	1.8	3.1
ANOVA (F calc.):	Rep = 0.56 ns			
	Var = 911.5 **			
	Rep x Var = 0.15 ns			
<u>Width Leaf (cm):</u>				
Mean	21.1	25.0	22.2	26.5
Std Dev.	1.6	3.8	1.7	5.8
ANOVA (F calc.):	Rep = 2.59 ns			
	Var = 25.3 **			
	Rep x Var = 0.08 ns			
<u>Length Leaf (cm):</u>				
Mean	21.9	36.1	23.0	36.1
Std Dev.	2.1	3.4	1.6	2.2
ANOVA (F calc.):	Rep = 1.26 ns			
	Var = 625.3 **			
	Rep x Var = 0.99 ns			
<u>Core Height (mm):</u>				
Mean	50.8	50.5	55.9	46.5
Std Dev.	7.7	7.9	8.3	8.9
ANOVA (F calc.):	Rep = 0.10 ns			
	Var = 6.93 *			
	Rep x Var = 6.24 *			
<u>Core Diameter (mm):</u>				
Mean	27.1	27.2	30.2	26.1
Std Dev.	3.2	2.7	2.8	2.4
ANOVA (F calc.):	Rep = 2.35 ns			
	Var = 10.2 **			
	Rep x Var = 11.2 **			

ns = not significant different, * = significant different at .05 prob level, ** = significant different at .01 prob level

- Capsule

additions

Quantitative Data

SJB3 EZ, San Juan Bautista, California, REP 1

sowing: 2/6/2007 evaluation: 5/4/2007

SJB4 EZ, San Juan Bautista, California, REP 2

idem idem

Trial	Pit#	Spread of Frame Leaves (cm)			Weight (grams)			Plant Diameter (cm)			Plant Height (cm)		
		Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
SJB3	1	47.1	76.2	62.2	793.3	1148.7	994.1	33.2	57.8	42.8	27.1	45.8	39.1
SJB3	2	40.8	80.5	68.2	833.7	1147.0	940.0	33.5	52.2	46.9	24.3	46.2	40.1
SJB3	3	45.3	85.4	68.6	571.8	1151.6	1152.3	33.6	61.9	44.7	23.1	48.7	40.0
SJB3	4	46.5	82.7	64.8	1082.7	1091.3	941.1	42.1	58.0	43.8	29.1	46.7	39.6
SJB3	5	49.0	89.8	68.3	863.6	1240.0	1024.2	37.9	56.3	43.0	28.7	51.5	38.9
SJB3	6	49.8	75.8	65.5	936.7	1246.3	819.7	45.7	68.0	45.3	30.6	46.0	35.4
SJB3	7	45.1	92.6	72.2	925.0	957.4	1110.8	37.5	59.0	45.3	26.6	46.8	39.0
SJB3	8	50.0	80.8	71.2	925.8	1143.6	1086.0	36.9	54.1	42.1	31.0	43.5	36.5
SJB3	9	49.8	78.3	69.5	1116.9	936.2	937.8	36.2	55.7	42.3	32.4	41.4	37.7
SJB3	10	44.5	76.2	69.3	739.0	970.8	1147.6	36.5	66.2	42.8	31.0	39.5	34.9
SJB3	11	49.9	92.7	70.8	850.6	897.9	831.0	41.8	58.7	41.8	33.2	43.8	40.5
SJB3	12	51.8	91.9	71.2	930.4	1019.6	1226.4	37.2	53.1	50.0	34.1	47.2	36.3
SJB3	13	51.8	79.8	67.0	969.3	1162.2	977.2	35.8	59.9	42.1	34.1	45.0	35.4
SJB3	14	45.0	91.5	75.1	696.6	958.8	1216.5	39.0	58.6	43.8	27.8	43.4	38.0
SJB3	15	45.0	84.6	69.8	801.8	1096.5	1189.7	34.7	60.6	46.7	30.0	45.1	38.4
SJB3	16	44.8	95.4	72.5	803.5	1411.2	1501.1	38.5	61.7	47.3	30.3	49.3	35.5
SJB3	17	49.5	79.8	67.2	1176.4	1033.1	1013.0	36.8	57.7	45.2	31.5	41.5	37.9
SJB3	18	50.5	80.8	68.0	953.0	1020.3	1151.9	35.3	55.8	44.5	32.6	39.8	38.8
SJB3	19	50.0	80.3	68.5	1058.6	944.2	1154.3	38.3	55.4	42.0	31.1	45.8	39.8
SJB3	20	45.3	85.3	66.6	957.6	1330.8	1264.4	35.4	62.6	42.8	27.5	48.2	37.3
SJB4	1	50.2	81.6	75.3	956.4	1107.8	1164.6	39.2	56.8	45.8	33.4	44.1	42.8
SJB4	2	49.0	83.4	76.6	1124.8	910.0	924.6	38.4	56.7	41.9	32.2	42.9	44.9
SJB4	3	51.0	78.8	65.8	1002.6	1163.8	863.3	38.4	56.2	45.5	30.2	42.4	37.4
SJB4	4	49.9	74.5	73.7	777.8	1126.8	1082.0	40.7	53.4	46.0	30.6	44.0	39.0
SJB4	5	46.7	84.3	74.0	879.8	1183.2	1372.3	39.0	53.0	44.0	30.0	46.8	38.7
SJB4	6	49.0	83.3	71.8	907.5	1161.4	1096.2	38.7	62.2	46.2	30.3	47.8	35.9
SJB4	7	41.0	81.4	69.4	627.0	1155.3	1058.5	33.6	62.1	48.2	27.0	46.7	37.9
SJB4	8	44.2	86.0	74.7	864.3	944.6	1135.7	37.5	59.6	42.1	30.5	46.9	39.8
SJB4	9	44.0	77.5	75.1	791.8	1141.3	1094.8	36.0	51.5	43.0	29.5	47.2	37.7
SJB4	10	45.9	78.3	73.5	696.2	850.5	1231.7	38.1	56.0	44.2	28.4	43.6	38.2
SJB4	11	45.9	85.5	63.2	845.7	844.2	1196.1	38.0	52.8	47.0	28.1	43.5	35.9
SJB4	12	45.6	71.7	67.9	692.6	950.7	1099.3	37.0	50.1	46.5	28.3	43.2	35.6
SJB4	13	47.6	87.8	63.8	773.2	1183.0	895.5	34.2	59.8	42.7	28.5	46.3	33.3
SJB4	14	46.5	79.0	69.1	896.3	968.9	1168.2	33.5	56.2	47.8	32.7	46.0	36.3
SJB4	15	46.8	84.8	67.5	751.8	1362.9	968.0	35.4	62.7	44.2	30.6	51.9	36.0
SJB4	16	48.0	78.2	75.0	687.5	1301.4	1260.1	38.3	57.9	40.7	27.8	41.0	40.4
SJB4	17	44.6	86.9	80.0	770.4	986.9	1211.7	39.2	57.7	47.1	29.5	45.0	40.6
SJB4	18	46.8	82.0	67.7	760.0	1132.2	1020.5	36.2	51.4	43.6	29.4	45.0	35.8
SJB4	19	46.7	88.8	74.6	1119.4	1011.2	1135.3	34.5	57.2	45.1	31.4	47.3	38.9
SJB4	20	52.5	82.8	72.9	1263.2	1032.8	1230.0	37.7	52.6	46.1	33.0	46.6	37.0
Mean SJB3													
St.Dev. SJB3		47.6	84.0	68.8	899.3	1095.4	1084.0	37.3	58.7	44.3	29.8	45.3	38.0
		3.0	6.2	2.9	146.9	139.5	162.1	3.1	4.1	2.2	3.0	3.1	1.8
Mean SJB4													
St.Dev. SJB4		47.1	81.8	71.6	859.4	1075.9	1110.4	37.2	56.3	44.9	30.1	45.4	38.1
		2.7	4.5	4.5	165.7	141.2	129.6	2.1	3.8	2.1	1.8	2.4	2.7
Mean SJB3+4													
St.Dev. SJB3+4		47.3	82.9	70.2	879.4	1085.7	1097.2	37.2	57.5	44.6	29.9	45.3	38.0
		2.8	5.5	4.0	155.8	138.9	145.5	2.6	4.0	2.1	2.5	2.8	2.3

- Capsule (continue)

additions

Quantitative Data

SJB3 EZ, San Juan Bautista, California, REP 1

sowing: 2/6/2007 evaluation: 5/4/2007

SJB4 EZ, San Juan Bautista, California, REP 2

idem idem

Trial	Plt#	Core Length (mm)			Core Diameter (mm)			suckers (# basal side shoots)		
		Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
SJB3	1	103.3	94.0	112.8	39.0	40.0	33.9	5	1	0
SJB3	2	89.0	97.5	97.4	40.9	38.7	35.3	4	2	0
SJB3	3	100.0	98.0	110.6	36.2	34.2	36.0	2	0	0
SJB3	4	107.4	80.2	89.4	39.2	35.0	36.4	3	0	0
SJB3	5	120.8	99.8	93.3	38.0	39.6	36.9	3	4	0
SJB3	6	120.5	93.0	90.8	41.6	37.8	39.4	3	0	0
SJB3	7	108.7	87.8	98.0	40.0	36.5	37.8	3	0	0
SJB3	8	121.5	88.1	93.2	41.1	40.5	39.3	4	2	0
SJB3	9	123.2	77.9	95.7	38.9	40.9	36.3	4	0	0
SJB3	10	121.6	74.5	106.6	38.6	38.0	35.5	4	0	0
SJB3	11	120.8	76.5	97.7	36.4	38.2	32.6	4	0	0
SJB3	12	118.5	88.5	102.8	42.5	40.7	38.0	4	1	2
SJB3	13	131.4	92.1	94.3	39.0	39.2	35.0	5	2	0
SJB3	14	91.6	83.0	100.3	39.0	37.0	39.4	4	0	2
SJB3	15	130.3	80.0	108.5	38.9	36.1	35.6	5	0	0
SJB3	16	111.7	109.7	115.2	39.0	41.0	40.5	5	4	1
SJB3	17	127.9	70.0	95.8	43.2	31.1	44.3	6	0	0
SJB3	18	129.2	84.4	101.4	39.6	36.8	37.1	4	0	1
SJB3	19	107.0	90.2	119.5	40.9	37.2	40.2	5	0	0
SJB3	20	112.8	112.7	123.2	36.0	41.1	37.2	5	4	0
SJB4	1	134.8	84.2	110.0	38.5	36.5	37.8	3	0	0
SJB4	2	135.1	96.6	108.5	41.2	39.3	35.3	5	0	0
SJB4	3	125.9	106.2	103.4	41.0	40.5	32.5	5	2	0
SJB4	4	114.7	106.5	98.8	37.2	37.6	43.3	2	0	0
SJB4	5	121.4	112.2	108.7	37.6	39.1	39.1	3	0	0
SJB4	6	102.8	95.0	102.2	40.8	37.5	44.9	5	0	0
SJB4	7	103.0	106.0	96.5	34.6	38.0	35.5	3	1	0
SJB4	8	115.5	93.1	102.4	39.6	33.2	36.9	5	0	0
SJB4	9	106.3	74.6	97.4	37.0	42.2	34.8	4	1	0
SJB4	10	106.5	74.4	105.5	36.6	33.8	36.9	4	0	0
SJB4	11	98.2	76.1	104.2	36.0	35.9	42.1	5	1	0
SJB4	12	109.8	86.7	101.3	58.2	35.7	40.8	4	3	0
SJB4	13	110.0	114.3	97.8	34.8	39.3	33.7	6	1	0
SJB4	14	133.1	91.9	115.3	39.0	40.7	36.5	5	1	1
SJB4	15	105.5	123.2	88.8	38.3	39.2	44.7	4	2	0
SJB4	16	111.3	108.3	106.5	36.0	41.8	38.4	2	2	0
SJB4	17	109.5	98.0	118.2	41.6	36.0	34.7	3	0	0
SJB4	18	118.4	97.4	95.0	37.0	38.2	37.8	4	1	0
SJB4	19	120.5	99.8	95.8	38.7	42.8	36.8	5	0	0
SJB4	20	134.7	75.8	104.8	39.5	36.3	40.2	6	0	1
Mean SJB3		114.9	88.9	102.3	39.4	38.0	37.3	4.1	1.0	0.3
St.Dev. SJB3		12.3	11.2	9.8	1.9	2.6	2.7	1.0	1.5	0.7
Mean SJB4		115.9	96.0	103.1	39.2	38.2	38.1	4.2	0.8	0.1
St.Dev. SJB4		11.7	14.1	7.1	4.9	2.7	3.6	1.2	0.9	0.3
Mean SJB3+4		115.4	92.5	102.7	39.3	38.1	37.7	4.1	0.9	0.2
St.Dev. SJB3+4		11.9	13.1	8.4	3.7	2.6	3.1	1.1	1.2	0.5

- Capsule (continue)

additions

Quantitative Data

SJB5 EZ, San Juan Bautista, California, REP 1

sowing: 2/20/2007 evaluation: 5/23/2007

SJB6 EZ, San Juan Bautista, California, REP 2

idem

idem

Trial	Plt#	Spread of Frame Leaves (cm)			Weight (grams)			Plant Diameter (cm)			Plant Height (cm)		
		Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
SJB5	1	43.9	82.5	67.2	1124.2	1438.5	1334.9	36.7	56.6	43.5	34.0	45.7	35.3
SJB5	2	48.1	82.4	61.8	1136.2	1466.3	1228.7	39.9	53.2	42.6	34.3	60.4	43.9
SJB5	3	39.8	83.1	67.1	955.7	1501.6	1188.4	32.4	47.5	38.3	35.1	47.1	31.9
SJB5	4	43.0	83.5	65.0	1216.7	1440.5	1017.1	32.6	44.2	42.1	36.3	48.6	33.2
SJB5	5	41.6	88.1	67.9	1249.8	1523.3	1382.8	36.1	48.9	40.9	32.9	54.4	39.5
SJB5	6	46.2	82.0	68.3	1236.6	1684.3	1052.2	36.2	58.7	40.5	34.5	48.7	35.7
SJB5	7	40.5	70.1	61.4	1008.3	1043.7	1080.0	35.0	48.2	40.1	32.7	46.5	34.6
SJB5	8	39.8	84.8	67.8	1018.4	1236.5	1390.5	36.2	46.3	40.9	28.6	48.0	32.3
SJB5	9	44.2	70.1	65.3	1241.2	1868.8	1305.9	37.6	61.3	40.2	32.3	48.4	40.9
SJB5	10	43.9	85.5	71.2	1325.5	1374.8	1290.4	37.2	44.7	44.7	34.8	46.9	35.1
SJB5	11	41.7	87.4	69.1	936.8	1292.8	1467.0	37.0	52.4	43.8	33.9	48.3	36.7
SJB5	12	40.5	73.2	69.9	951.4	1194.3	1461.2	32.3	50.9	41.3	31.7	35.7	38.7
SJB5	13	45.7	77.9	70.3	1306.9	1129.0	1370.1	38.3	47.6	41.2	34.5	41.1	34.9
SJB5	14	37.6	86.0	67.0	835.5	1652.2	1645.9	33.6	51.1	41.2	31.1	45.0	33.4
SJB5	15	43.2	89.7	66.8	994.1	1405.0	1282.1	33.2	55.4	41.7	33.7	45.2	34.5
SJB5	16	44.9	85.7	67.2	1051.4	1570.8	1278.5	34.7	46.9	44.0	32.8	52.8	39.1
SJB5	17	42.7	86.3	68.1	934.1	1341.8	1488.6	32.5	41.7	40.2	33.1	45.7	36.7
SJB5	18	40.2	78.4	65.0	1180.0	1300.0	1008.7	35.3	49.2	40.8	32.0	43.9	37.7
SJB5	19	40.5	87.3	61.9	907.5	1482.5	1594.3	35.6	48.0	48.7	30.3	49.2	38.2
SJB5	20	43.2	85.5	64.5	1377.6	1441.7	1132.0	40.1	50.8	40.1	37.2	48.6	35.6
SJB6	1	44.7	77.3	60.9	1335.8	1101.5	1064.2	37.4	52.2	41.6	34.1	50.2	36.7
SJB6	2	40.6	68.2	65.3	861.3	1705.7	1300.5	34.1	52.8	40.9	28.9	43.4	42.0
SJB6	3	46.4	77.5	66.7	1001.8	1337.4	1303.1	34.3	49.1	41.8	31.8	45.2	39.6
SJB6	4	45.7	79.3	65.2	980.0	1298.7	1069.4	32.8	47.0	40.3	32.5	41.9	35.2
SJB6	5	43.2	76.1	63.3	1100.0	1556.6	1360.5	33.1	53.7	41.8	33.7	57.0	35.3
SJB6	6	42.9	73.5	69.1	1347.7	995.4	1360.0	35.2	43.2	44.7	35.1	41.2	32.0
SJB6	7	49.4	79.3	63.9	1139.1	1612.0	1247.2	39.2	54.5	40.3	35.1	49.7	35.1
SJB6	8	46.7	71.8	67.4	1055.0	1134.2	1124.5	35.6	54.1	41.0	33.8	43.9	39.6
SJB6	9	44.8	76.1	65.8	917.5	1367.7	1417.0	34.6	49.8	42.4	33.9	45.1	38.9
SJB6	10	40.8	74.0	62.6	1084.5	1106.4	1358.3	32.7	42.5	41.2	31.4	43.7	34.1
SJB6	11	46.5	77.6	63.8	1208.9	1650.4	1215.9	36.4	55.7	47.2	30.7	43.2	39.8
SJB6	12	40.2	81.3	64.0	1206.0	1677.2	1278.6	34.6	55.1	43.5	32.9	48.2	38.3
SJB6	13	44.0	95.1	61.6	938.8	1241.5	1277.4	33.0	51.2	39.8	31.2	58.0	33.7
SJB6	14	52.7	85.2	69.5	1128.6	1579.5	1198.0	37.8	58.3	43.7	39.1	47.4	37.6
SJB6	15	40.9	66.3	55.7	972.3	1172.7	1432.4	34.9	47.9	39.9	30.8	40.8	33.4
SJB6	16	41.3	95.8	69.3	1083.4	2004.4	1271.2	34.2	59.7	40.1	30.4	59.3	33.9
SJB6	17	41.6	77.8	68.2	1125.8	1935.6	1253.8	34.7	52.8	40.0	32.5	50.2	34.2
SJB6	18	42.8	88.7	60.6	894.4	1407.9	987.4	35.8	53.7	40.6	32.3	54.4	32.8
SJB6	19	37.4	81.4	64.1	1044.5	1177.5	1113.4	34.9	49.9	39.5	36.9	42.1	32.7
SJB6	20	46.5	88.3	74.9	936.8	1822.3	1258.7	36.3	48.5	38.4	29.1	48.3	32.3
Mean SJB5		42.6	82.5	66.6	1099.4	1419.4	1300.0	35.6	50.2	41.8	33.3	47.5	36.4
St.Dev. SJB5		2.6	5.7	2.8	160.0	195.0	183.3	2.4	5.0	2.3	2.0	4.9	3.0
Mean SJB6		44.0	79.5	65.1	1068.1	1444.2	1244.6	35.1	51.6	41.4	32.8	47.7	35.9
St.Dev. SJB6		3.6	7.9	4.1	136.5	297.1	121.1	1.7	4.5	2.1	2.5	5.7	3.0
Mean SJB5+6		43.3	81.0	65.9	1083.8	1431.8	1272.3	35.4	50.9	41.6	33.1	47.6	36.1
St.Dev. SJB5+6		3.1	7.0	3.5	147.6	248.4	155.9	2.1	4.7	2.1	2.3	5.3	3.0

- Capsule (continue)

additions

Quantitative Data

SJB5 EZ, San Juan Bautista, California, REP 1
 SJB6 EZ, San Juan Bautista, California, REP 2

sowing: 2/20/2007 evaluation: 5/23/2007
 idem idem

Trial	Plt#	Core Length (mm)			Core Diameter (mm)		
		Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
SJB5	1	214.0	122.1	162.7	42.2	47.0	50.4
SJB5	2	184.1	141.5	155.5	43.8	45.6	48.1
SJB5	3	181.6	144.8	173.4	43.2	45.3	47.6
SJB5	4	235.2	130.0	147.5	41.1	48.9	39.8
SJB5	5	170.5	147.9	172.3	41.2	45.3	44.7
SJB5	6	175.3	176.0	195.2	42.4	48.1	40.4
SJB5	7	174.1	125.1	188.2	42.7	41.9	50.8
SJB5	8	155.8	188.7	181.9	43.1	44.5	49.3
SJB5	9	178.7	169.4	156.4	45.1	53.2	43.8
SJB5	10	184.6	146.2	163.5	45.1	50.5	51.0
SJB5	11	158.6	132.3	165.0	40.2	46.4	49.2
SJB5	12	181.3	138.2	188.6	44.4	51.0	39.8
SJB5	13	191.4	135.5	175.9	45.6	47.9	49.1
SJB5	14	164.8	134.9	195.8	40.9	45.5	50.9
SJB5	15	173.2	139.8	157.4	45.0	42.9	51.0
SJB5	16	158.4	160.3	169.5	42.3	44.6	46.6
SJB5	17	205.6	180.6	161.9	41.9	50.0	44.3
SJB5	18	204.9	143.2	147.9	43.4	50.1	45.4
SJB5	19	168.2	160.4	134.7	47.7	51.6	45.2
SJB5	20	210.5	147.7	149.5	43.5	47.9	38.9
SJB6	1	174.0	131.5	164.5	46.2	43.2	51.0
SJB6	2	153.6	146.9	150.2	42.7	44.0	50.2
SJB6	3	162.2	134.3	75.8	41.9	43.6	45.1
SJB6	4	189.4	132.1	160.6	43.6	49.8	47.9
SJB6	5	206.8	149.4	183.9	45.3	36.9	47.5
SJB6	6	201.4	142.6	165.4	42.5	44.7	45.3
SJB6	7	184.5	138.4	157.1	43.2	47.4	50.9
SJB6	8	199.6	130.5	165.7	47.1	49.0	44.5
SJB6	9	166.8	172.6	174.0	49.7	46.2	38.9
SJB6	10	174.3	137.8	167.2	42.6	46.2	47.1
SJB6	11	191.7	136.9	161.8	47.2	46.7	47.8
SJB6	12	120.0	164.7	181.1	44.3	50.2	44.2
SJB6	13	178.5	170.9	139.9	40.8	48.1	45.8
SJB6	14	157.2	170.4	168.5	43.1	50.6	49.6
SJB6	15	188.6	127.9	178.4	45.5	42.3	50.0
SJB6	16	196.1	174.8	170.6	41.4	50.1	48.7
SJB6	17	168.4	143.7	181.3	43.0	48.2	42.3
SJB6	18	182.3	158.1	141.2	43.2	44.2	32.8
SJB6	19	209.5	106.1	159.0	50.3	44.2	52.4
SJB6	20	128.9	202.9	162.8	48.6	53.0	46.0
Mean SJB5		183.5	148.2	167.1	43.2	47.4	46.3
St.Dev. SJB5		21.0	18.6	16.9	1.9	3.0	4.1
Mean SJB6		176.7	148.6	160.5	44.6	46.4	46.4
St.Dev. SJB6		24.0	22.1	23.3	2.8	3.7	4.6
Mean SJB5+6		180.1	148.4	163.8	43.9	46.9	46.4
St.Dev. SJB5+6		22.5	20.2	20.3	2.4	3.4	4.3

additions

- Capsule

Statistical analysis: Capsule vs Seacrest

SJB3 San Juan Bautista, California, REP 1 sowing: 2/6/2007 evaluation: 5/4/2007
 n = 20, F(.05) = 3.97, F(.01) = 6.98
 SJB4 San Juan Bautista, California, REP 2 idem idem
 idem

Trial:	SJB3		SJB4	
	Capsule	Seacrest	Capsule	Seacrest
<u>Spread of Frame Leaves (cm):</u>				
Mean	47.6	84.0	47.1	81.8
Std Dev.	3.0	6.2	2.7	4.5
ANOVA (F calc.):	Rep = 1.90 ns			
	Var = 1347.3 **			
	Rep x Var = 0.78 ns			
<u>Weight (grams):</u>				
Mean	899.3	1095.4	859.4	1075.9
Std Dev.	146.9	139.5	165.7	141.2
ANOVA (F calc.):	Rep = 0.80 ns			
	Var = 38.5 **			
	Rep x Var = 0.09 ns			
<u>Plant Diameter (cm):</u>				
Mean	37.3	58.7	37.2	56.3
Std Dev.	3.1	4.1	2.1	3.8
ANOVA (F calc.):	Rep = 2.78 ns			
	Var = 735.9 **			
	Rep x Var = 2.28 ns			
<u>Plant Height (cm):</u>				
Mean	29.8	45.3	30.1	45.4
Std Dev.	3.0	3.1	1.8	2.4
ANOVA (F calc.):	Rep = 0.12 ns			
	Var = 670.8 **			
	Rep x Var = 0.009 ns			
<u>Core Height (mm):</u>				
Mean	114.9	88.9	115.9	96.0
Std Dev.	12.3	11.2	11.7	14.1
ANOVA (F calc.):	Rep = 2.14 ns			
	Var = 68.2 **			
	Rep x Var = 1.22 ns			
<u>Core Diameter (mm):</u>				
Mean	39.4	38.0	39.2	38.2
Std Dev.	1.9	2.6	4.9	2.7
ANOVA (F calc.):	Rep = 0.001 ns			
	Var = 2.75 ns			
	Rep x Var = 0.09 ns			
<u>Suckers # (basal side shoots)</u>				
Mean	4.1	1.0	4.2	0.8
Std Dev.	1.0	1.5	1.2	0.9
ANOVA (F calc.):	Rep = 0.15 ns			
	Var = 157.3 **			
	Rep x Var = 0.34 ns			

ns = not significant different, * = significant different at .05 prob level, ** = significant different at .01 prob level

additions

- Capsule (continue)**Statistical analysis: Capsule vs Bambino**

SJB3 San Juan Bautista, California, REP 1 sowing: 2/6/2007 evaluation: 5/4/2007
 n = 20, F(.05) = 3.97, F(.01) = 6.98
 SJB4 San Juan Bautista, California, REP 2 idem idem
 idem

Trial:	SJB3		SJB4	
	Capsule	Bambino	Capsule	Bambino
<u>Spread of Frame Leaves (cm):</u>				
Mean	47.6	68.8	47.1	71.6
Std Dev.	3.0	2.9	2.7	4.5
ANOVA (F calc.):	Rep = 2.28 ns			
	Var = 921.6 **			
	Rep x Var = 4.61 *			
<u>Weight (grams):</u>				
Mean	899.3	1084.0	859.4	1110.4
Std Dev.	146.9	162.1	165.7	129.6
ANOVA (F calc.):	Rep = 0.04 ns			
	Var = 41.2 **			
	Rep x Var = 0.96 ns			
<u>Plant Diameter (cm):</u>				
Mean	37.3	44.3	37.2	44.9
Std Dev.	3.1	2.2	2.1	2.1
ANOVA (F calc.):	Rep = 0.23 ns			
	Var = 186.8 **			
	Rep x Var = 0.48 ns			
<u>Plant Height (cm):</u>				
Mean	29.8	38.0	30.1	38.1
Std Dev.	3.0	1.8	1.8	2.7
ANOVA (F calc.):	Rep = 0.15 ns			
	Var = 229.1 **			
	Rep x Var = 0.012 ns			
<u>Core Height (mm):</u>				
Mean	114.9	102.3	115.9	103.1
Std Dev.	12.3	9.8	11.7	7.1
ANOVA (F calc.):	Rep = 0.14 ns			
	Var = 29.5 **			
	Rep x Var = 0.003 ns			
<u>Core Diameter (mm):</u>				
Mean	39.4	37.3	39.2	38.1
Std Dev.	1.9	2.7	4.9	3.6
ANOVA (F calc.):	Rep = 0.13 ns			
	Var = 3.99 *			
	Rep x Var = 0.45 ns			
<u>Suckers # (basal side shoots)</u>				
Mean	4.1	0.3	4.2	0.1
Std Dev.	1.0	0.7	1.2	0.3
ANOVA (F calc.):	Rep = 0.16 ns			
	Var = 308.1 **			
	Rep x Var = 0.31 ns			

ns = not significant different, * = significant different at .05 prob level, ** = significant different at .01 prob level

additions

: - Capsule (continue)

Statistical analysis: Capsule vs Seacrest

SJB5 San Juan Bautista, California, REP 1 sowing: 2/20/2007 evaluation: 5/23/2007
 n = 20, F(.05) = 3.97, F(.01) = 6.98
 SJB6 San Juan Bautista, California, REP 2 idem idem
 idem

Trial:	SJB5		SJB6	
	Capsule	Seacrest	Capsule	Seacrest
<u>Spread of Frame Leaves (cm):</u>				
Mean	42.6	82.5	44.0	79.5
Std Dev.	2.6	5.7	3.6	7.9
ANOVA (F calc.):	Rep = 0.42 ns			
	Var = 999.3 **			
	Rep x Var = 3.30 ns			
<u>Weight (grams):</u>				
Mean	1099.4	1419.4	1068.1	1444.2
Std Dev.	160.0	195.0	136.5	297.1
ANOVA (F calc.):	Rep = 0.005 ns			
	Var = 56.8 **			
	Rep x Var = 0.37 ns			
<u>Plant Diameter (cm):</u>				
Mean	35.6	50.2	35.1	51.6
Std Dev.	2.4	5.0	1.7	4.5
ANOVA (F calc.):	Rep = 0.28 ns			
	Var = 363.3 **			
	Rep x Var = 1.43 ns			
<u>Plant Height (cm):</u>				
Mean	33.3	47.5	32.8	47.7
Std Dev.	2.0	4.9	2.5	5.7
ANOVA (F calc.):	Rep = 0.03 ns			
	Var = 249.5 **			
	Rep x Var = 0.12 ns			
<u>Core Height (mm):</u>				
Mean	183.5	148.2	176.7	148.6
Std Dev.	21.0	18.6	24.0	22.1
ANOVA (F calc.):	Rep = 0.45 ns			
	Var = 43.3 **			
	Rep x Var = 0.57 ns			
<u>Core Diameter (mm):</u>				
Mean	43.2	47.4	44.6	46.4
Std Dev.	1.9	3.0	2.8	3.7
ANOVA (F calc.):	Rep = 0.09 ns			
	Var = 21.2 **			
	Rep x Var = 3.26 ns			

ns = not significant different, * = significant different at .05 prob level, ** = significant different at .01 prob level

additions

- Capsule (continue)

Statistical analysis: Capsule vs Bambino

SJB5 San Juan Bautista, California, REP 1 sowing: 2/20/2007 evaluation: 5/23/2007
 n = 20, F(.05) = 3.97, F(.01) = 6.98
 SJB6 San Juan Bautista, California, REP 2 idem idem
 idem

Trial:		SJB5		SJB6	
		Capsule	Bambino	Capsule	Bambino
<u>Spread of Frame Leaves (cm):</u>					
Mean		42.6	66.6	44.0	65.1
Std Dev.		2.6	2.8	3.6	4.1
ANOVA (F calc.):	Rep	= 0.01 ns			
	Var	= 934.3 **			
	Rep x Var	= 3.95 ns			
<u>Weight (grams):</u>					
Mean		1099.4	1300.0	1068.1	1244.6
Std Dev.		160.0	183.3	136.5	121.1
ANOVA (F calc.):	Rep	= 1.63 ns			
	Var	= 30.7 **			
	Rep x Var	= 0.13 ns			
<u>Plant Diameter (cm):</u>					
Mean		35.6	41.8	35.1	41.4
Std Dev.		2.4	2.3	1.7	2.1
ANOVA (F calc.):	Rep	= 1.01 ns			
	Var	= 176.3 **			
	Rep x Var	= 0.02 ns			
<u>Plant Height (cm):</u>					
Mean		33.3	36.4	32.8	35.9
Std Dev.		2.0	3.0	2.5	3.0
ANOVA (F calc.):	Rep	= 0.73 ns			
	Var	= 26.7 **			
	Rep x Var	= 0.002 ns			
<u>Core Height (mm):</u>					
Mean		183.5	167.1	176.7	160.5
Std Dev.		21.0	16.9	24.0	23.3
ANOVA (F calc.):	Rep	= 1.99 ns			
	Var	= 11.6 **			
	Rep x Var	= 0.0002 ns			
<u>Core Diameter (mm):</u>					
Mean		43.2	46.3	44.6	46.4
Std Dev.		1.9	4.1	2.8	4.6
ANOVA (F calc.):	Rep	= 0.87 ns			
	Var	= 9.68 **			
	Rep x Var	= 0.68 ns			

ns = not significant different, * = significant different at .05 prob level, ** = significant different at .01 prob level

additions

- Capsule
Bolting measurements

Location Enza Zaden, San Juan Bautista, California sowing: 1/5/07 transplant: 2/16/07									
Plt#	#Days Seed Stalk Emergence			Height Mature Seed Stalk			Spread of Bolter Plant		
	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
1	106	110	110	120.6	134.3	153.2	26.1	26.5	23.1
2	100	105	112	127.1	159.1	167.3	34.5	33.2	25.2
3	98	109	106	119.6	157.1	135.8	30.5	27.5	26.3
4	98	106	108	136.8	176.2	163.1	35.9	38.3	30.8
5	-	106	106	-	148.7	153.2	-	28.2	27.4
6	104	111	108	129.2	153.1	167.3	30.6	23.3	25.3
7	113	111	106	140.6	138.7	155.2	37.5	20.2	28.1
8	113	106	108	129.2	136.1	145.3	33.0	27.3	27.9
9	101	105	105	129.4	164.4	162.5	34.8	35.0	30.3
10	104	111	108	134.1	165.3	165.4	35.2	32.2	28.3
11	110	111	108	143.1	171.3	152.5	35.4	26.1	24.4
12	101	110	108	140.6	184.4	153.1	34.3	32.8	38.5
13	108	111	108	140.4	185.4	137.5	37.5	37.6	25.4
14	108	113	106	139.3	184.5	157.1	33.9	33.1	26.2
15	101	113	105	132.5	187.0	154.2	34.8	25.3	27.2
Mean	105	109	108	133.0	163.0	154.8	33.9	29.8	27.6
St.Dev.	5.1	2.7	1.8	7.5	18.4	9.7	3.0	5.3	3.7

Location Enza Zaden, San Juan Bautista, California sowing: 2/6/2007 (direct)									
Plt#	#Days Seed Stalk Emergence			Height Mature Seed Stalk			Spread of Bolter Plant		
	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino	Capsule	Seacrest	Bambino
1	114	-	126	104.3	-	137.6	49.2	-	31.4
2	116	-	128	127.4	-	163.3	47.1	-	33.8
3	122	136	126	149.9	65.8	142.1	41.5	27.2	28.4
4	115	136	133	124.4	109.5	142.6	47.6	26.2	21.6
5	119	131	-	107.1	152.8	-	24.7	37.2	-
6	122	135	127	120.5	120.1	90.8	30.9	12.1	23.1
7	118	133	125	96.8	138.8	94.1	23.4	41.6	20.2
8	119	132	126	90.2	143.2	157.1	42.4	31.9	43.2
9	118	135	-	66.2	105.4	-	21.8	30.3	-
10	118	138	122	67.2	171.2	155.8	12.1	29.8	36.2
11	114	123	133	120.4	151.7	160.1	43.6	29.8	31.5
12	113	122	120	96.4	114.2	99.7	29.5	34.1	17.2
13	113	-	126	71.6	-	121.4	20.4	-	19.5
14	113	131	131	84.2	132.8	-	25.7	30.6	-
15	116	131	-	93.1	127.2	-	33.8	26.8	-
Mean	117	132	127	101.3	127.7	133.1	32.9	29.8	27.8
St.Dev.	3.1	5.0	3.9	24.1	27.6	27.4	11.6	7.1	8.2

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) <i>ENZA ZADEN BEHEER B.V.</i>	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER <i>E19.5761</i>	3. VARIETY NAME <i>CAPSULE</i>
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) <i>PO Box 7, 1600 AA ENKHUIZEN HALING 1E, 1602 DB ENKHUIZEN NETHERLANDS</i>	5. TELEPHONE (Include area code) <i>+31.228.315.844</i>	6. FAX (Include area code) <i>+31.228.315.854</i>
7. PVPO NUMBER <i>#200700120</i>		
8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.		
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.		
<i>NETHERLANDS</i> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
10. Is the applicant the original owner?		
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, please answer <u>one</u> of the following:		
a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?		
<input type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country		
b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?		
<input type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country		
11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):		

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S) ENZA ZADEN BEHEER B.V.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) PO Box 7, 1600 AA ENKHUIZEN HALING 1E, 1602 DB ENKHUIZEN NETHERLANDS	TEMPORARY OR EXPERIMENTAL DESIGNATION E19.5761 VARIETY NAME CAPSULE
NAME OF OWNER REPRESENTATIVE (S) AERNOUDT AARDSE ENZA ZADEN RESEARCH USA, INC	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) PO Box 866 SAN JUAN BAPTISTA, CA 95045	FOR OFFICIAL USE ONLY PVPO NUMBER #200700120

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Signature

Date

02/07/2007